Textile Industries

Formerly "COTTON"

a W. R. C. Smith publication

AUGUST, 1954

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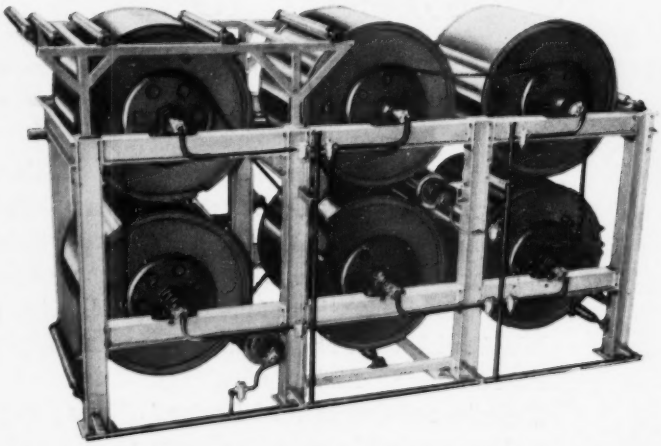
STAINLESS STEEL BACK DRYERS



- Stainless Steel Back Dryers. ASME Code Construction for 35 psig working pressure. Diameters of 60", 72" and 84".
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- Slasher cylinders of all types.
- Stainless Steel Size Kettles, Vats, Tanks, etc.

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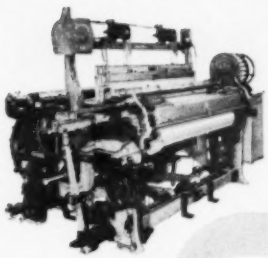
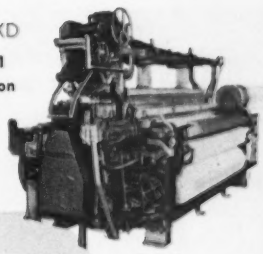


Model X-2

Model XD
with 2X1
Box Motion

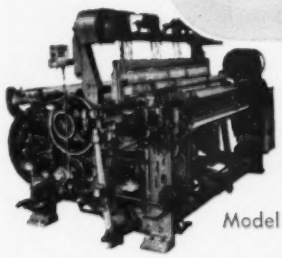


NEW

DRAPER LOOMS

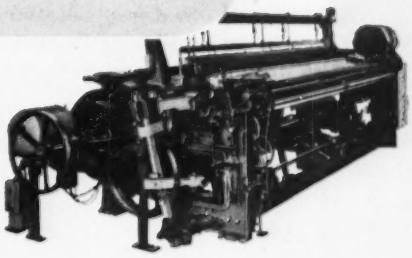
OFFSET

Shrinking Mill Margins



Model XP

Model XL



Old looms, at best, fall short of today's requirements.

Shrinking mill margins demand increased output per unit, improved cloth quality, utilization of added flexibility, and reduction of costs.

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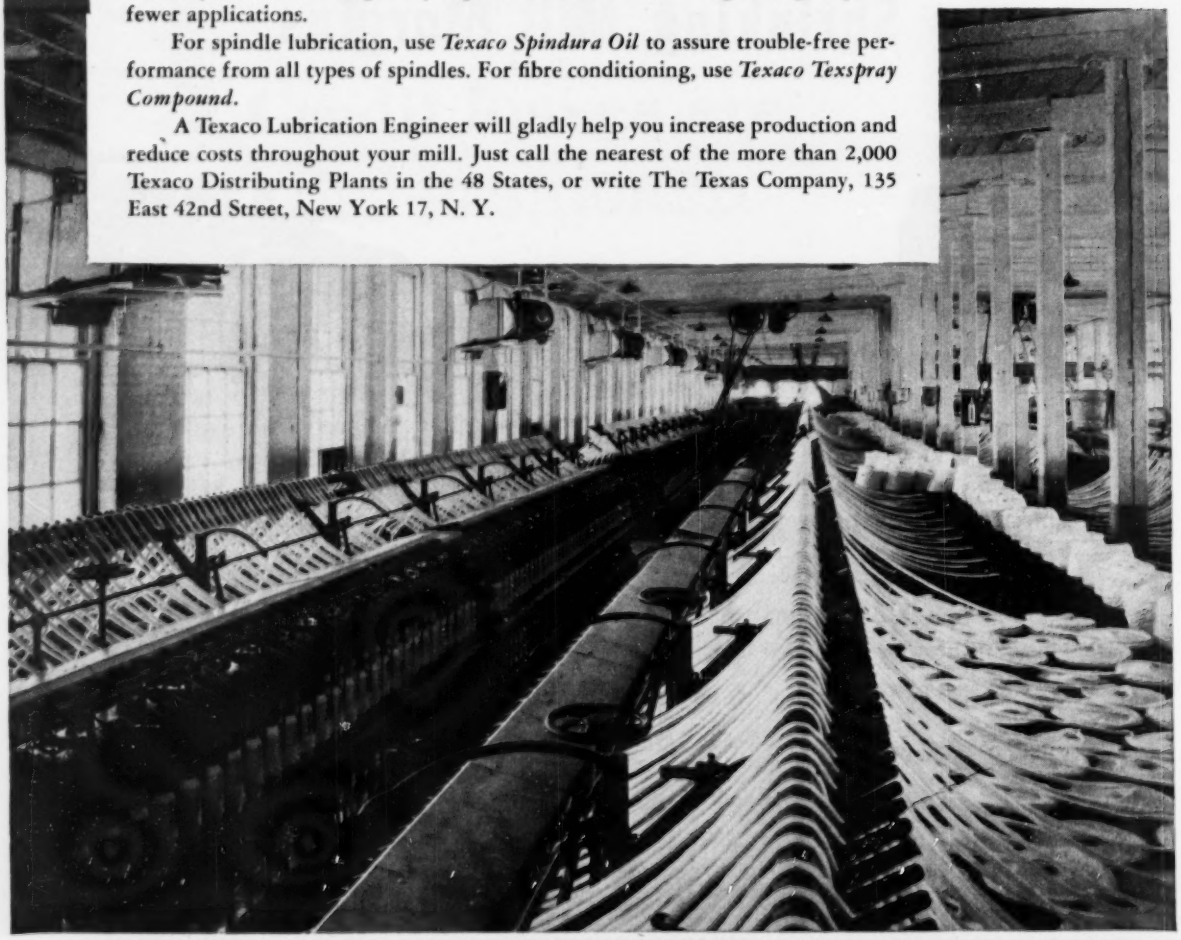

TEXACO

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

ABC NBP BPA

Textile Industries

Formerly "COTTON"

Vol 118, No. 8
August, 1954

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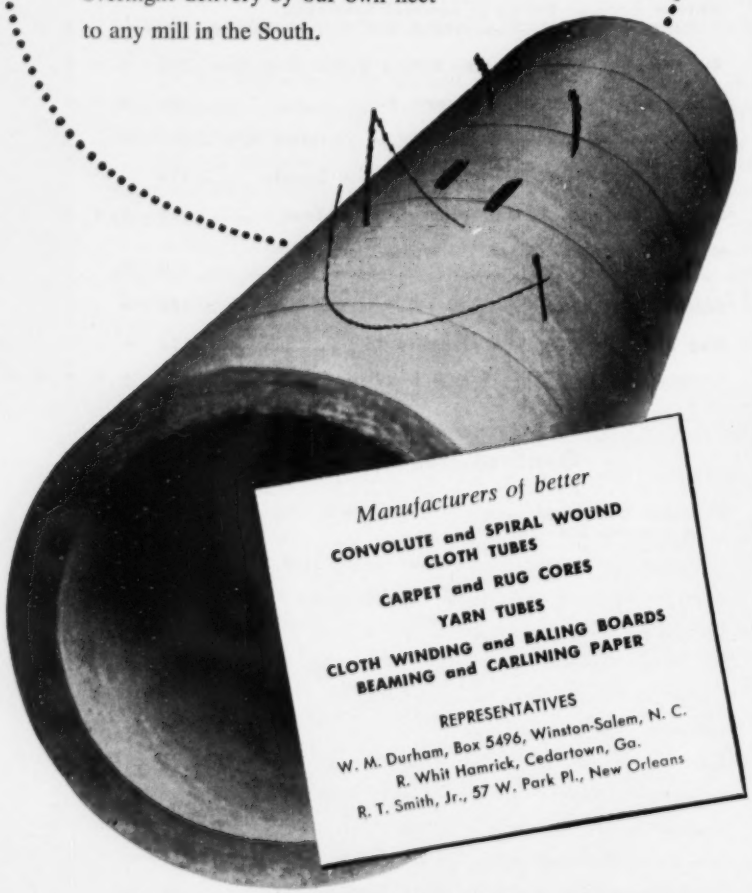
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Shorts and Remnants

► Just at a time when most executives are on vacation or are trying to work in an extra week's vacation at company expense, we get a most

disturbing letter from one of our top executive friends. He writes for more information on Why Executives Fail (TI May p75). Seems that he had gone to work one morning and found himself dispensed with.

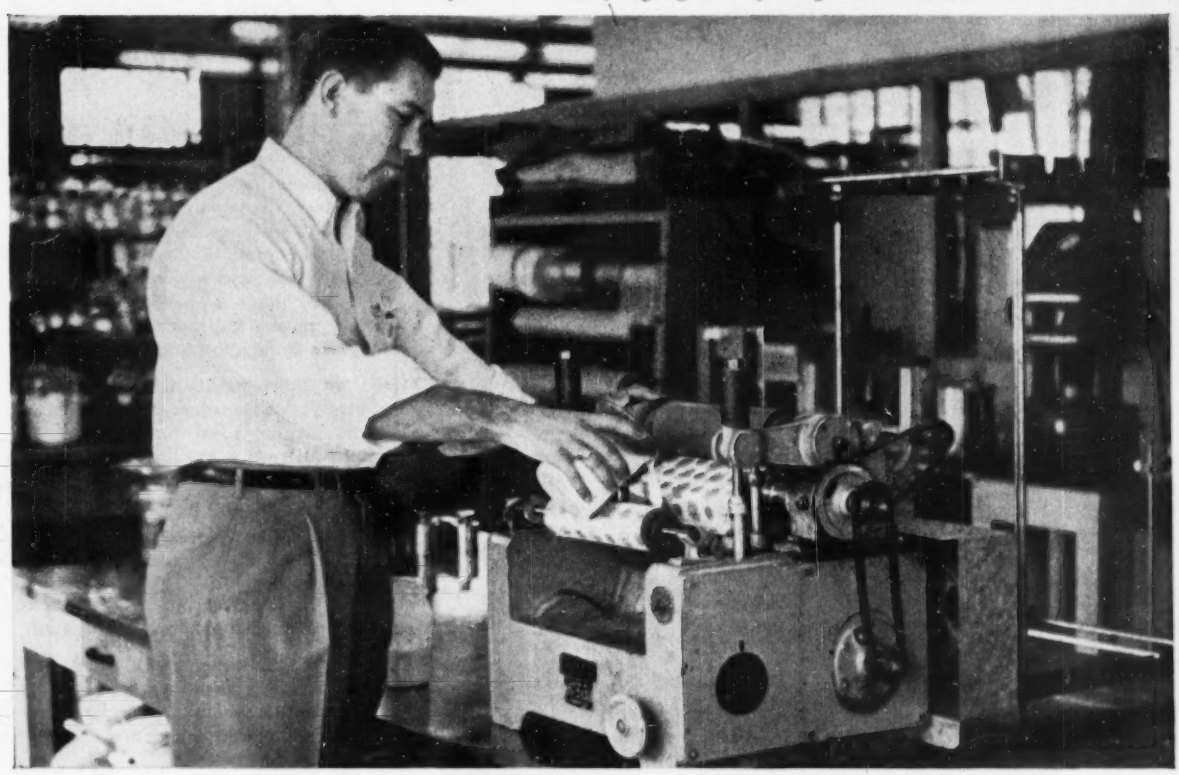
► It always worries Ole S&R when an indispensable executive is dispensed. For the most part textile executives are just about the smartest manufacturers of any manufacturers to be found most anywhere. They are the only executives manufacturing anything who can run five days three shifts continuously making something that no one is buying. That takes brilliance.

► And if someone finally does buy 100 yards of textile material at half what it costs to make, the indispensable executive adds a Saturday morning shift. Why? Because he has been trained to know that when the customer gets a cut in price, someone else expects to buy even cheaper; and the executive wants to sell more of what he's making further below cost than another indispensable executive.

► Everyone will have to agree that our indispensable textile executives are smarter to be able to sell what they make for much less than it costs to make it, than . . . . say . . . . a manufacturer of kidde carts, autos, or textile machinery. Now compare just a run-of-the-mill manufacturer of fountain pens; he only makes what he can sell. Uneducated character. Doesn't he know that he can rent an empty warehouse and make fountain pens seven days a week for 24 hours a day . . . . and store them!

► Or, take the garden variety

NEW MARKETS for your cotton fabrics can start like this in your laboratory. Prove to yourself the advantages gained by using finishes based on CHEMIGUM LATEX.



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Union Special offers product application bulletins covering the manufacture of a number of different types of wearing apparel. Copies are available on request with no obligation. WRITE TODAY.

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Bulletin No. 251: "Workmen's Service Garments."
Bulletin No. 252: "Men's Shorts and Pajamas."
Bulletin No. 253: "Overalls, Coveralls and Work Pants."
Bulletin No. 254: "Men's Knit Underwear."
Bulletin No. 255: "Women's Knit Underwear."
Bulletin No. 256: "Knit Outerwear."
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Shorts and Remnants

executive manufacturer of any item bought by the general public. The law of supply and demand applies to his business. Not so in textiles. Lucky industry. Warehouse full, market below cost, no orders in sight, running three shifts five days a week. If goods pile up, we blame it on Washington or on the other indispensable executive who's doing the same thing.

► Indispensable textile executives always let someone else quit making the surplus. Like the little girl who was told not to use a naughty word—she didn't say it any more—except once to herself.

THIMK!

► A method has been patented for treating socks to cure and avoid reinfection of athlete's foot.

► A handkerchief is being made in Germany covered with illustrated recipes for cocktails and instructions on how to cure hangovers.

► Report comes that the idea of men's walking shorts is steadily gaining ground. About time they grew up. For years they've been crawling.

► Our favorite name for an advertising agency is one from the Chattanooga 'phone book: "The Rest-a-While Advertising Company." Sounds low-pressure enough to us. Even sort of peaceful-like.

THIMK!

► A bill in Congress authorized the President to barter or sell for foreign currencies $1.3 billion in surplus farm commodities, including cotton. Cotton bales are mighty bulky to be sending around to foreign countries; a much more convenient form to ship cotton abroad is yarn or cloth—or was that the way Congress planned to get the cotton back?

► A new fish-scaling power kit enables the indispensable executive to scale fish five times faster than old methods. And while you're planning that trip to catch fish so you can save time in scaling them—leave room open for October 4-8. Those are dates for the 18th Southern Textile Exposition. That's just the formal name—you'll remember it as The Greenville Show. Those promotion stickers you'll be seeing everywhere were de-

When the question is

AIR CONDITIONING

what's the best answer for you?

Amco can offer you a choice of four different systems, alone or in combination: humidification, ductless evaporative cooling, unit dry-duct, or central station air conditioning. Whatever your particular requirements may be, Amco engineers will give you unbiased advice on the air conditioning system best suited to your needs.

The facts about textile mill air conditioning — the advantages and disadvantages of each type of system — are completely covered in Amco's new booklet — "Air Conditioning for the Textile Industry".

- . . . *what factors favor a central station system?*
- . . . *what is meant by a "split" central station system?*
- . . . *when is a dry-duct system advantageous?*
- . . . *what factors favor ductless evaporative cooling?*

These and other questions are answered and explained in this booklet. If you are one of the management group interested in air conditioning, write for your copy — or better still, ask an Amco engineer to call.

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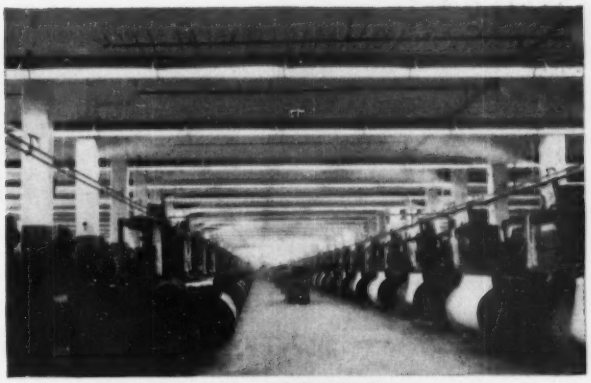
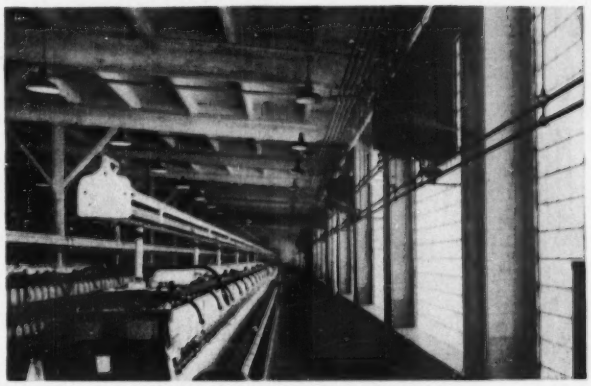
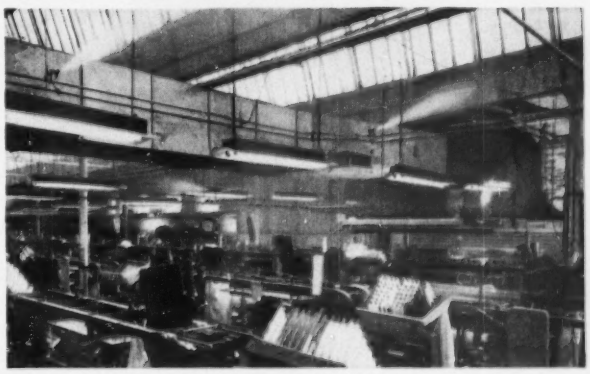


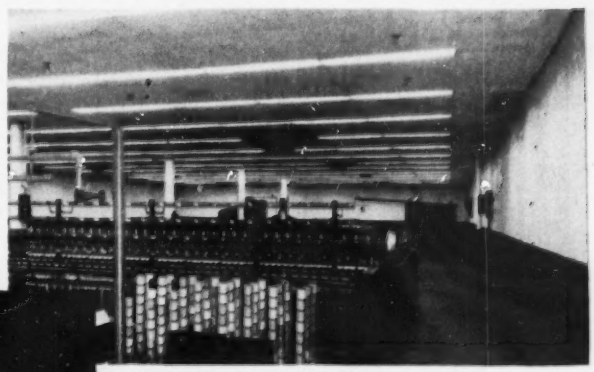
Humidification



Ductless Evaporative Cooling



Unit Dry-Duct System



Central Station Air Conditioning

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In hundreds of mills Bijur Automatic Lubrication is paying big dividends in increased production and lower operating costs.

With Bijur, a machine oils itself —while running. You profit from increased production on every machine. There are no stops for oiling and bearing failures are virtually eliminated.

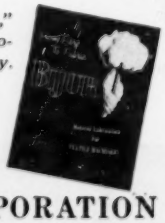
When your machines are Bijur-equipped, even the most inaccessible bearings get the right amount of filtered oil at the right time.

Your operating costs are cut: oil spots on work are eliminated, personnel injuries are avoided, fire risk is reduced, oil consumption is cut greatly by accurate metering, and you enjoy better housekeeping.

Leading textile mills are banking on Bijur Automatic Lubrication. Let us show you how we can help you do the same.

0-5 2365

Colorful, new bulletin, "From Fibre to Fabric," shows the practical benefits that Bijur Automatic Lubrication offers to the Textile Industry. Write for your copy.



BIJUR LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

Shorts and Remnants

signed and published by TI, and adopted by The Show. Hope you like them.

THIMK!

► A cheerful note is that the black tuxedo is going by the board. Gun metal gray is said to be the coming thing.

► Statistics puzzle many. Latest puzzler is that women apparently wear out more hosiery than is sold. Not exactly a revolutionary discovery because for years people have been spending more money than they make.

► A 12-page booklet by Standard Pressed Steel Company discusses the art of sitting down on the job. Of course, they're selling stools and chairs. Sitting down is a noble pastime, but we've never been able to figure why anyone would sit down when lying down is possible. Sitting down is work as compared to lying down.

THIMK!

► A recent request for a sample copy of TI came from Begeacres Farm and the letterhead indicates that they are breeders of pure bred registered Guernsey cattle. Watch for a new casein fiber.

► Still another request on our postage saver card indicates future knitting competition. It was signed by an "inn-keeper." Hotel business must be slow.

► We used to think that we had the titles of our readers down pretty well when we classified them as officials, superintendents, overseers, dyers, chemists, etc. Intrigued by the one from "inn-keeper," we checked back several weeks and found a number of technicians, time-study, research engineer, etc. One signed himself "capitalist," another "chairman of standards," and another "color man." But the age of specialization is really here because one fellow calls himself "pH Engineer."

► A contributor writes in that he has achieved a boyhood ambition. He wanted to wear long pants. Now no one wears them any longer than he.

THIMK!

► From up New England way our

The Secret of

BETTER PACKAGE DYEING

is SONOCO'S

DYTEX® TUBES

with PLASTAVON SLEEVES

. . . BETTER THAN EVER!

The Sonoco Dytex Tube has proven to be a more satisfactory yarn carrier for all standard forms of package dyeing. Standard sizes ⅜" I.D. x 6¼" long and 1⅜" I.D. in varying lengths. Special sizes available. Tubes can be furnished in certain colors for identification. The exclusive Plastavon Sleeve allows more even dye distribution and better control of "flow". Also reduces slippage in primary winding. Remember—the secret to better package dyeing is Sonoco's Dytex Tubes!

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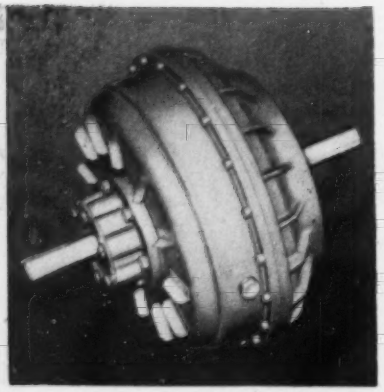
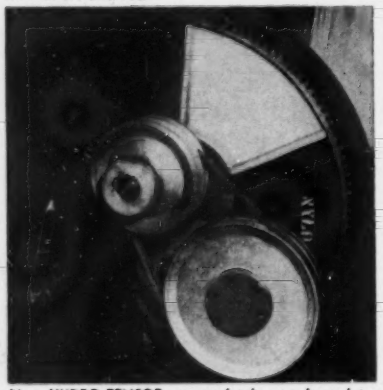
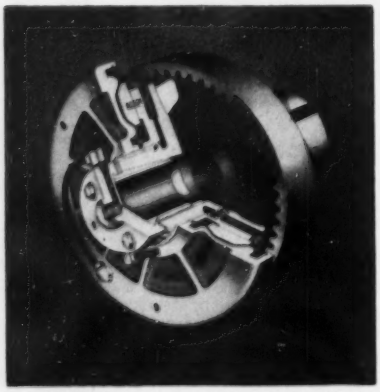


Newly-designed Model 12.2 HYDRO-WYND Drive automatically maintains predetermined tension without intermittent adjustment. Also available in Models 8.4 and 7.4.



New HYDRO-TENSOR, a completely new loom let-off, maintains uniform tension from full to empty beam—permits unlimited positioning of cloth fell and re-establishment of initial weaving tension after shut-down—and provides infinitely variable pick range.



New Model PT Air-Actuated Loom Friction Clutch improves quality of cloth by assuring proper control of pick. Self-compensating for wear, it eliminates adjustment. Readily applicable to existing looms.

New Textile Machinery Drives

reduce loom fixers' work load, improve quality of cloth

Here are the newest developments in textile machinery drives . . . . offering *more efficient, more economical automatic control.*

The new Twin Disc Model PT Air-Actuated Loom Friction Clutch, the new HYDRO-TENSOR, and the newly-designed HYDRO-WYND® Drive offer the textile industry the most effective solutions to the problems which continually plague textile mills: (1) constant tension; (2) starting high inertia loads; (3) shock loads; (4) high maintenance costs.

You'll want to write for complete information on these new Twin Disc textile machinery drives. Get the facts on how they can *reduce your loom-fixers' work load and improve quality of your cloth* . . . and how *easily* they are installed on either your present machinery, or on the new models you're planning to order.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

TWIN DISC

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

Branches or Sales Engineering Offices: Cleveland • Dallas • Detroit • Los Angeles • Newark • New Orleans • Seattle • Tulsa

Shorts and Remnants

friend Chisholm of Foster Machine Company reports that the backlog of orders has doubled within a period of a few weeks and he is looking to the immediate future with confidence. That's encouraging news and tallies with our own experience. TEXTILE INDUSTRIES reports a gain in advertising pages over 1953 (the only textile publication with an increase). However, we don't have any backlog.

► Next month TI will cover the AATCC Atlanta meeting which is the South's first wet-processing show; October issue plays up the one and only 18th Southern Textile Exposition in Greenville; and November is to bring you the annual new equipment and process review. How about that?

► Along with the slogan "THIMK" we remind you to "KEEP SNILING" and Keep Your Eye on TI.

THIMK!

The Flat Selvage

" . . . May issue under News In Brief carried an item referring to a mill that had developed a flat selvage particularly adaptable to the coating trade . . . would it be possible for you to tell me the name of the mill or their sales agent so that I might pursue this further. . . "

E. A. P.
Purchasing Department
New York

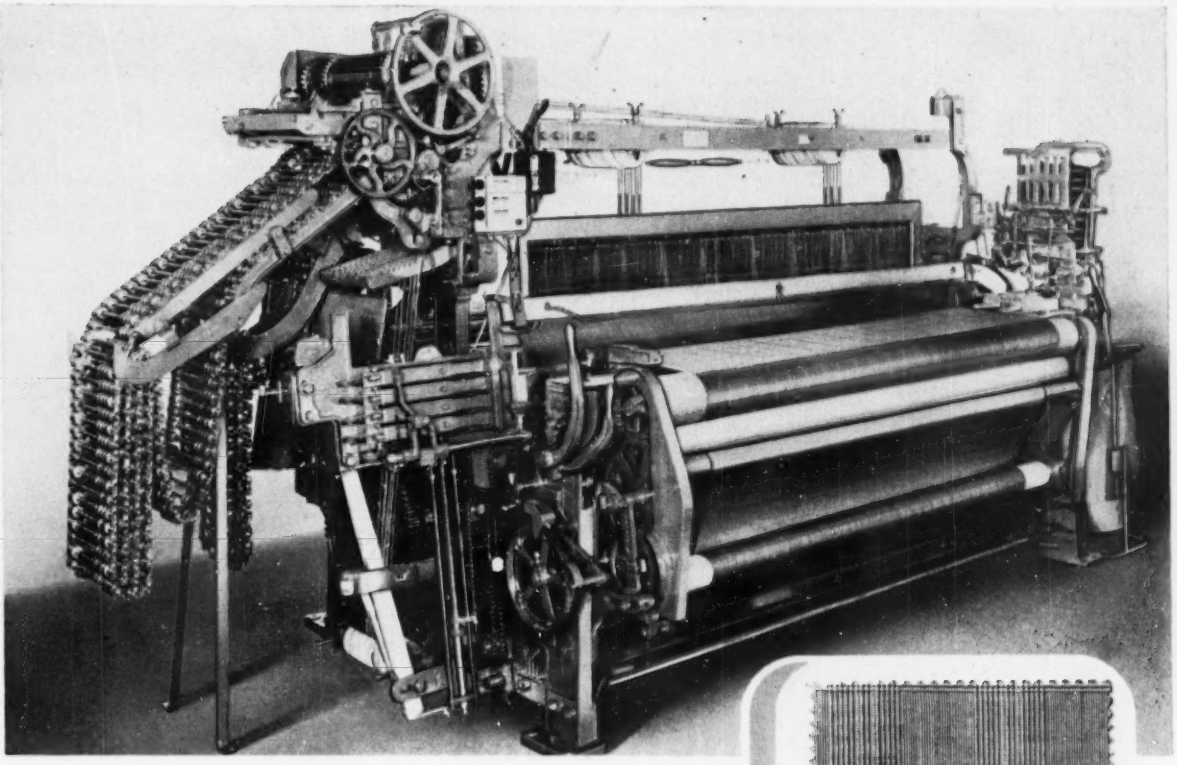
" . . . can you supply me additional information on the improved selvage mentioned at the bottom of page 157 of the May issue. . . "

R. L. H.
Product Development Engineer
Development Department
South Carolina

" . . . am very much interested in the selvage device described on page 157 of your May issue . . . could you furnish any more details on this device or the name of the mill which has developed it so that I may contact them directly. . . "

J. P. H.
Planning Engineer
Textile Division
South Carolina

► Because of the patent status of the selvage device, TI cannot publish the full facts at this time; however, in certain instances the inventor of the device *may* communicate directly

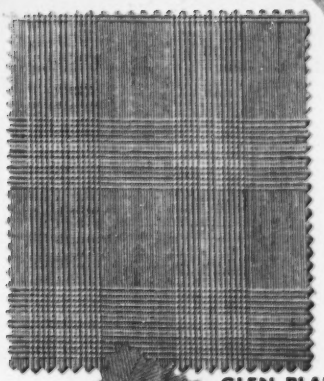


C&K's New
Select-A-Pic Looms
weave many pick-and-pick fabrics
. . . automatically!

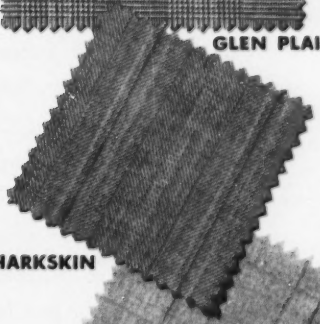
It's easy to "score a hit" . . . when you compose it on C&K's new automatic Select-A-Pic Loom. For then you have *automatic* bobbin-changing operation . . . with *automatic* work-assignments . . . and *automatic* loom speeds . . . on many fabrics which are otherwise woven non-automatically. For instance, fabrics alternating single picks of 2 colors (like sharkskins) . . . or combining single-pick and double-pick sections using 2 colors (like Glen plaids) may be woven automatically using 2 or 4 shuttles. If but 2 shuttles are used for the 2 ground colors, 1 or 2 fancy colors may be employed at the same time for further decorative effect. And so on, through many other variations.

So you can see that . . . starting with the basic W-3 or W-3A 4 x 2 Box Automatic Filling Mixing or Tri-Color Motions . . . and by *combining for the first time in one loom* many features formerly used separately . . . plus the addition of many new mechanisms . . . this new Select-A-Pic has introduced *maximum flexibility* to the C&K Line of Automatic Looms. In addition, increased work-assignments and more output per loom mean lower cost per yard and a better competitive position.

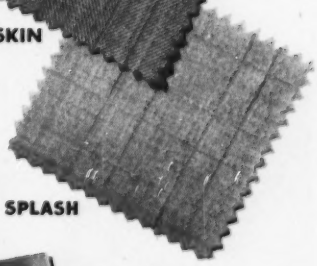
This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Fabrics . . . which are **WOVEN** Fabrics.



GLEN PLAID



SHARKSKIN



SPLASH

ACTUAL SAMPLES OF THESE FABRICS...

plus complete mechanical details of Select-A-Pic operation . . . are contained in a new illustrated bulletin, just off the press. A copy is yours for the asking . . . *write today.*

Crompton & Knowles LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

Philadelphia, Pa. · Charlotte, N. C. · Allentown, Pa.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

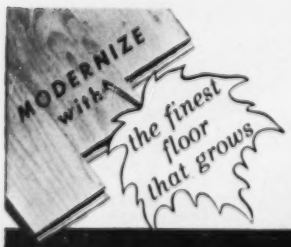
FOR ONE THING—

folks' feet *feel* better

Floor of Northern Hard Maple in Greenville, S. C., plant of Judson Mills, division of Cotwool Mfg. Corp., Wilmington, Del., makers of dotted Swisses, lawns, ginghams and rayon and cotton fabrics.

ON A FLOOR OF foot-friendly NORTHERN HARD MAPLE

Foot-comfort isn't *everything* in a mill floor, of course. But you *do* get it in resilient, smooth, Northern Hard Maple. And with the unsurpassed *comfort*, Maple pays lifelong dividends of easy, brush-and-broom cleaning, low-cost maintenance, simple and swift refinishing. It fights traffic wear—scraping and scuffing and denting. It creates no dust or lint, and "there's always a new floor underneath." We're sure these are the reasons why Judson Mills chose MFMA-warranted Northern Hard Maple, as have so many other textile operators. MFMA inspection and grading care is maintained to everlastingly guard and justify your valued high opinion of "the finest floor that grows."



MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 591, Pure Oil Bldg., 35 E. Wacker Drive
Chicago 1, Illinois

FLOOR WITH NORTHERN HARD MAPLE BEECH AND BIRCH

Shorts and Remnants

with other mills or interested parties. Your letter will be passed along to the inventor via the editors of TI.

See What You Missed

" . . . we are at present interested in purchasing certain materials for our print room, and after looking through your magazine we fail to find any advertising of print room supplies . . . would appreciate your sending us a few names of some in our area. . . "

W. J. B.
Assistant Superintendent
New York

► Will suppliers of print room supplies please advertise in TI; as a service to our readers, of course. Advertising revenue is only incidental to publishing.

Mission Accomplished

" . . . tut, tut. No harm done. Extra-sensory-perception, a few cents postage, and voila, your mission accomplished . . . we are well pleased with the reaction to our advertising in your excellent publication and trust our pleasant relationship may continue in the years to come. . . "

JULIAN L. SAGALYN
Holyoke Machine Co.

► Amen, Brother Sagalyn!

You Mean They Really Work?

" . . . I brought back your Circular Equivalent of the Slide Rule from the textile show in Atlantic City. While I have been able to figure out how to use several of the scales there are several which I have not been able to master. Will you please send me some instructions on the use of the instrument? If there are more instruments available we would like to know how we might get them as there are other engineers in our department who would like to have them. . . "

B. P. R.
Engineer
North Carolina

► Congratulations! You're one of few people who ever learned to multiply 2x2 on those things. Sorry, the slide rules are all gone and the book of instructions would only confuse you. Rumor has it that the manufacturer who sold them to us has migrated to Belgian Congo.

After All These Years

" . . . would it be possible for me to buy a reprint of Industrial Engi-

SANDOZ'

LANASYN

line cuts your dyeing time

If you're dyeing wool, nylon or silk in yarn, piece goods, top or raw stock, here's a way to do it faster:

Sandoz metal complex Lanasyn colors, dyed neutral or with small amounts of Ammonium Sulphate, cut boiling time an average of 30 to 40 minutes. There's less damage to the fibre and less felting and your goods come through in better condition after dyeing.

Lanasyn colors have excellent fastness properties equal to most chrome dyes. The Lanasyns have a similar dyeing rate and can be used with chrome colors as well as other neutral metallized dyes.

NEW LANASYN BROWN

The most recent addition to the line is LANASYN BROWN 3RL (Pat. Appl. for), a rich, reddish brown distinguished by its superior fastness to light and fulling and freedom from "skitteriness".

Our growing Lanasyn line includes Lanasyn Orange RLN (Pat. Appl. for), Lanasyn Yellow GL, Lanasyn Yellow 2RL (Pat. Appl. for), Lanasyn Blue GL (Pat.), Lanasyn Grey BL, Lanasyn Green (Pat.), Lanasyn Brown RL (Pat.).

Write for complete information including samples and fastness properties on wool, silk or nylon in whatever colors you're interested in. Sandoz branches are in Hudson, Mass.; Fairlawn, N.J.; Philadelphia; Charlotte; Cincinnati; Los Angeles; Montreal; Toronto. *Sandoz Chemical Works, Inc., 61 Van Dam St., New York 13, N.Y.*

3.9

SANDOZ

SANDOZ

THINKS AHEAD WITH TEXTILES

Make this quick

WHAT TO LOOK FOR WHEN YOU CHECK YOUR COTS AGAINST THE LIGHT

O. K. These Armstrong's NO-742-S Cots have been on the frame 11 months, yet need no rebuffing. Performance like this has convinced mill men that Armstrong's Accotex Covers require no more than a minimum of re-buffing to maintain top yarn quality.

NEED RE-BUFFING. If your inspection shows that cots are hollowing out or grooving prematurely, they're probably not controlling yarn so well as they should. Install Armstrong's Accotex Cots. There's a type for every mill condition.

These photographs are 5½ times actual size.

"Cover-to-Cover" test yourself . . .

You'll see how Armstrong's Accotex® Cots resist grooving, spin quality yarn month after month

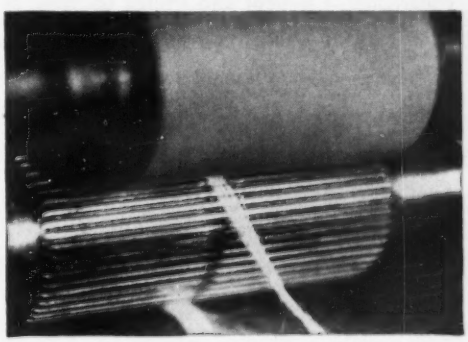
Here's a simple test that shows whether your cots are giving the good yarn control they should . . . that helps you get maximum life from your roll covers.

Lift a pair of your rolls off the frames and hold them up to the light, cover-to-cover. This test in effect "doubles" the extent of any hollowing or grooving, helps you see at a glance if your rolls need re-buffing. But with Armstrong's Accotex Cots, chances are you *won't see more than the faintest bit of light* between the covers —even after they've been in constant use for as long as a year!

Wherever Armstrong's Accotex Cots are checked this way, the results are always the same. They not only resist grooving and hollowing, but retain good drafting surfaces for as long as a year or more. There's real economy in these Armstrong cots, because you buff them only once a year—you get longer cot life plus the saving in time and labor.

IF EYEBROWING IS A PROBLEM, use Armstrong's NO-742-S Cots. A new synthetic rubber compound developed by Armstrong gives NO-742-S Cots a drafting surface with plenty of "bite." It packs waste fibers well back on the clearers, and with normal picking schedules, you'll never see an eyebrow on spinning frames equipped with NO-742-S Cots. And you'll save on labor because this cot requires fewer pickings per shift than any other compound.

Ask your Armstrong man about this new Accotex Cot—he'll be glad to get you some samples for test frames. And after spinning with the NO-742-S for several months, you'll know how long wearing and clean spinning they are. For further information write Armstrong Cork Company, Industrial Div., 6508 Ivy Street, Lancaster, Pennsylvania.



WITH REVOLVING CLEARERS, USE THE LAP-RESISTANT J-490 COT

If you're using revolving clearers, no matter what count yarn you're spinning, Armstrong's J-490 Accotex Cots will give cleaner, more uniform yarn. Special electrolytes added to the J-490's long-wearing synthetic rubber composition make it highly resistant to lapping. The J-490 runs exceptionally clean, too. So if lapping's a problem, call your Armstrong man today and arrange for a test side of J-490 Accotex Cots.

ARMSTRONG'S ACCOTEX COTS

S-Sure, you bet I can!

I-I-I'm a R-Riveter. Been riveting for years. So d-d-darn good at it t-that when a mill owner asked m-me to put in some air conditioning, I said, S-sure, you bet I can! H-had a load of f-fun putting it in, t-too. Used a lot of good rivets. When I finished up with the air conditioner, I w-went and riveted up some of his machinery around the m-mill. This fellow s-sure got a good bargain. Didn't charge him a-anything for all the extra r-r-rivets.

Went over there a f-few weeks later to see the old fellow, and he must h-h-have taken up r-r-riveting 'cause he was s-s-shaking too! Kept mentioning things were b-b-bad for him on Worth Street. That r-r-riveting will do that to you. He didn't act v-very friendly to me either. C-can't understand it, 'specially after he got such a bargain from m-m-me.

*Don't try to find a bargain by letting inexperienced hands work on your air conditioning. If you do, you're in trouble, Brother.

Leaders in textile air conditioning for more than a quarter century ● engineering, drafting and service departments serving the greatest names in the industry ● 1442 South Tryon, Charlotte, North Carolina

Shorts and Remnants

neering for the Small Plant by George E. Tucker from the May 1949 issue. . . "

L. T.

Rhode Island

► 'Twas a TI giveaway reprint as long as it lasted, and all have been given. Try U. S. Dept. of Agriculture Library in Washington; cite issue and page numbers for any articles desired back through 1908; prices are reasonable, service fair (and we don't make a commission, either).

Filter Cloth from Blends

" . . . be obliged if you could supply names and addresses of southern plants manufacturing filtering cloth out of fiber mixtures and nylon fiber alone, and the importance and rating of these firms. . . "

GERARD DUBOIS
Commercial Attache of France
305 International Trade Mart
New Orleans 12, La.

► Some named. Others may write and tell how important you are and how your mill rates.

Selling without Overhead

" . . . please send me some information on woolen mills and their locations . . . I have products that I want to sell to them. . . "

G. F.

New Jersey

► Information sent. TI too timid to suggest advertising as a selling tool; an eleemosynary institution, you know.

Spin Limits

" . . . carried an article Factors Affecting Spinning Limits by Grover and Hamby . . . would deem it a favour should you be able to let me have a copy and be happy to forward you the cost of same. . . "

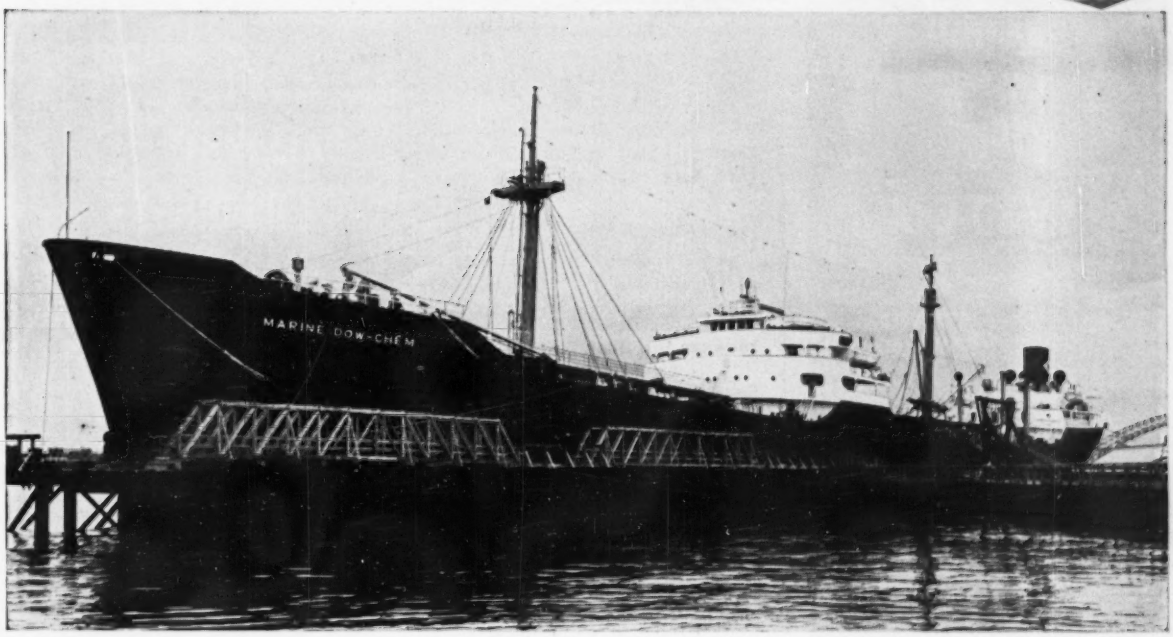
W. J. W.

Canada

► Delighted to favour; editorial service invoices are a TI taboo.

Want to Help a Trainee?

" . . . I desire a short course or training on the latest methods and techniques available in the manufacturing of knitted underwear, with special emphasis on production planning and production controls . . . wish to acquire by either attending a university course or by working with an underwear company who would give this training to me first hand . . . presently employed by large knitted



S. S. Marine Dow-Chem on first arrival at expansive Bayonne Terminal.

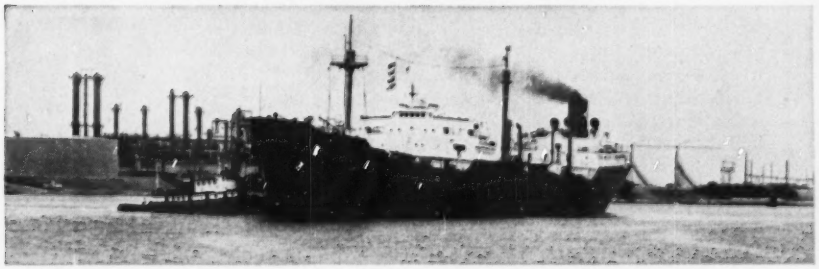
New Dow Ship and New Dow Terminals

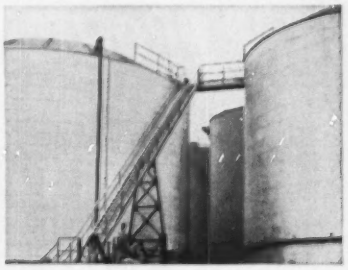
speed volume delivery of 73% caustic soda to users

The Dow Chemical Company now has extensive new caustic soda solution distribution facilities in operation. The *S. S. Marine Dow-Chem*, first tanker ever designed and built exclusively for the sea transportation of liquid chemicals, currently delivers 73% caustic soda in volume quantity to two new Atlantic seaboard bulk terminals, located at North Charleston, S. C. and Bayonne, N. J. Both this thoroughly modern 18,000-ton chemicals carrier and all terminal facilities for cargo unloading, storage and transshipment safeguard the uniform high purity of Dow's 73% caustic solution.

One hundred thousand pounds of commercially pure nickel were used in construction of the *Marine Dow-Chem's* caustic cargo tanks, pumpline and heating coils. Terminal storage tanks are fully nickel-clad, all loading and unloading pumps and lines are pure nickel. Nickel steam heaters keep 73% solution at the exact temperature desired.

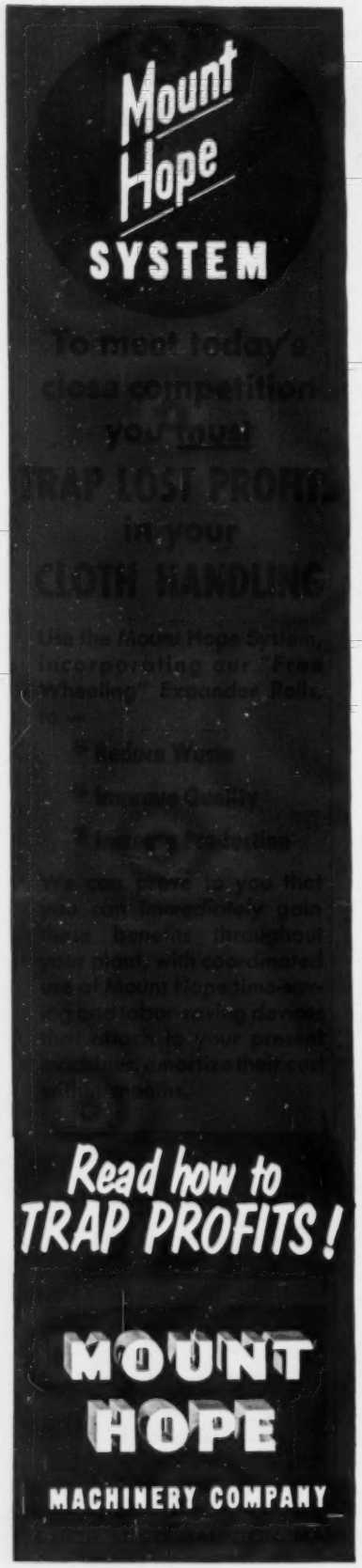
This important distribution expansion means that Dow customers are assured even faster delivery—*another* good reason for placing that caustic order with Dow. THE DOW CHEMICAL COMPANY, Midland, Michigan.





New flagship of extensive Dow waterways fleet begins maiden voyage from Freeport . . . new nickel-lined tanks at Bayonne protect 73% caustic purity during storage.

you can depend on DOW CHEMICALS



Shorts and Remnants

underwear manufacturer, having spent one year in plant and six years with sales organization. . . "

G. M. C.

Canada

► Universities or mills who wish to cooperate with G. M. C. may direct a letter to him via TI editors.

Indexes for Back Years

" . . . have noticed in the Shorts & Remnants section that you have extra indices of articles published through the years 1947 to 1951 . . . would be pleased to receive a copy . . ."

A. J. M.

Plant Superintendent
Canada

► Ole S&R is always glad to identify a reader. Small overruns of both indexes and indices are made to serve readers who fail to find theirs in each December issue or who have use for additional copies. Should we run out of indices, we'll send you an index.

Impression Corrected

" . . . read an article One-Step Dye-Slash in your May issue . . . the impression gained from reading the article . . . is that Brawer Bros. Silk Company developed the process and are the only ones offering to sell the machine to the textile industry. What your staff man meant to convey, we believe, is that Brawer Bros. Silk Company are offering to dye warps commercially for other textile concerns . . . we have been offering [for sale] the continuous dyer-slasher machine to the textile industry. . . "

EVAN V. QUINN
President
Unistel Textile Machine Corp.
P. O. Box 470
Port Chester, N. Y.

► Brawer Bros. Silk Company dyes warps commercially for other textile concerns. Unistel Textile Machine Corporation sells the continuous dyer-slasher machine.

Used Equipment

" . . . wish to buy [used] knitting machines. Can you give us information as to where these might be purchased?

C. G. C.

Michigan

► There are a number of dealers in used textile machinery, some specializing in knitting, others in cotton equipment, and others on woolen or dye-bleach-finish equipment. Readers are directed to the proper source; TI does not carry an editorial listing of used equipment for sale; some associations list equipment for sale by their members. As in so many fields, a reputable specialist in used equipment can save a mill both time and money - - - - - and many future headaches.

Spinning Wool on Cotton System?

" . . . we are interested in locating some high grade mills that are spinning wool on the cotton system. We use several numbers both in straight wool and wool blends . . . would appreciate the names of mills. . . "

N. C. S.

New York

► Those known passed along. If you wish to contact this inquirer the editors will pass along your letter.

Flaming Fabrics

" . . . Agency has received a request from post in Tokyo for 600 copies of a reprint from October 1953 issue of TI entitled The Flammable Fabrics Act by George S. Buck, Jr. Tokyo wishes to present copies of the reprint to Japanese textile manufacturers and exporters . . . appreciated if you would inform us of the cost of reprints. . . "

LOUIS A. FANGET
Acting Chief
Publications Promotion Branch
Information Center Service
U. S. Information Agency
Washington, D. C.

► Hold your hats. Looks as if even more Japanese goods will be on the way.

" . . . appreciate receiving 75 copies of Flammable Fabrics Act, supplement to May 1954 TI, for distribution to the students of our summer refresher course . . . if copies are no longer available, may we have permission to reprint. . . "

RUTH H. LITTLE
United States Testing Co.
Hoboken, N. J.

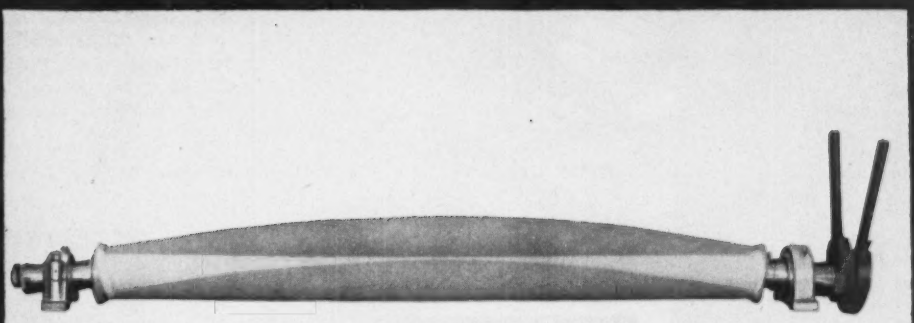
" . . . appreciate it very much if you would send me about twenty reprints of your article Flammable Fabrics Act . . . would like to distribute these to several firms who have asked for information on this act. . . "

ROLAND E. DERBY

The Derby Company, Inc.
Lawrence, Mass.

► Our supply of reprints is exhausted.

Mount Hope FREE WHEELING EXPANDERS

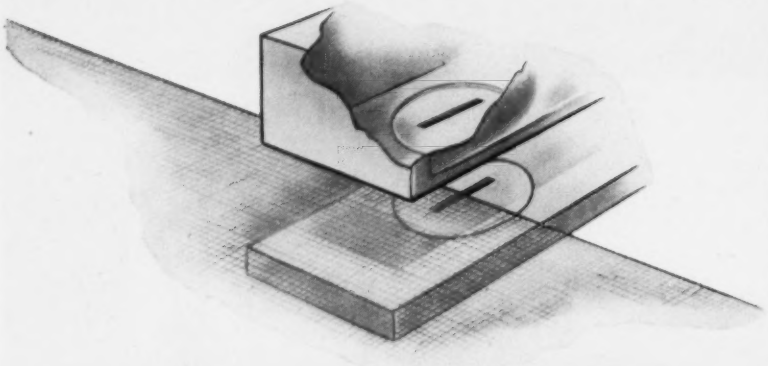


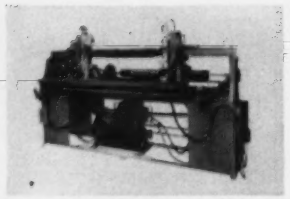
Mount Hope "Free Wheeling" Expander Rolls meet the need for maintaining maximum width and eliminating wrinkles on textile fabrics. Note the new improved mounting bracket—now standard on all Mount Hope Rolls—making it simpler than ever to mount, dismount and adjust.

MOUNT HOPE
MACHINERY COMPANY

ASKANIA
CLOTH GUIDE CONTROL

Nothing touches the cloth but a breath of air





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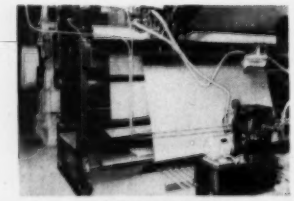

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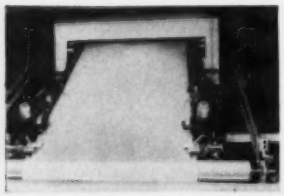
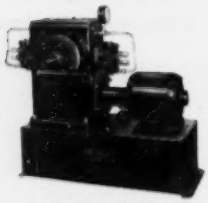


CLIP TYPE TENTER



CLOTH GUIDE REGULATOR

The Askania Cloth Guide Control has been tested on hundreds of applications—it's extremely fast, accurate and dependable. It guides fast moving webs with a breath of air. It's an ideal unit to solve your cloth guiding problems on Tenter Frames, Tubing Machines, Folding Machines, Examining Machines, Printing Machines, Slitting Machines, Labeling Machines or Rewinding Machines. Askania Cloth Guide Controls are establishing new standards in the finishing departments of hundreds of Textile Mills. If you have a cloth guiding problem—ask for Bulletin A-161, or call Askania engineers for full details.

ASKANIA REGULATOR COMPANY
260 E. Ontario Street, Chicago, Illinois
Subsidiary of General Precision Equipment Corp.

Personal NOTES
ABOUT MEN YOU KNOW

Five $3,000 scholarships to Alabama Polytechnic Institute were recently awarded to men from **Avondale Mills** communities in Alabama, according to Cleveland L. Adams, head professor of Textile Technology. Winners were **David M. Hall,** Lafayette; **Don Gilbert Holley,** Alexander City; **Jamie Earl Price,** Sylacauga; **George Terry King,** Pell City; and **Alvin Ray Phurrough,** Sylacauga.

Thomas E. Lucas is now general manager of the Louiseville, Que.,

Mr. Lucas

plant of Associated Textiles of Canada Limited.

Joseph Kaper-Kiewicz, formerly assistant overseer of winding, is now overseer of wool finishing at American Thread Co., Willimantic, Conn. **Wallace Blakeslee, Jr.,** is now overseer of testing.

Joseph B. Ely has been elected president of American Woolen Co. He succeeds Francis W. White, who remains a director.

Henry M. Brabham was recently appointed superintendent of Alma Mills. He succeeds Glenn White.

Perez O. Lewin has joined the staff of Anderson-Nichols & Co., engineering consultants, as director of plant engineering. He was formerly with the American Woolen Co.

News from Burlington Mills: **Howard Glen Merck,** supervisor at Asheboro Hosiery Finishing, was recently awarded a bronze plaque for saving the life of Jack Johnson by pulling him from a flaming grease pit at a local service station. * * * **Dan Moss** is the new plant superintendent at

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WATER-REPELLENT
PROBLEMS
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SILICONE RESIN DURABLE WATER REPELLENT FINISH

Hydro-Pruf allows you to assure your customers truly durable water repellency, plus a finer hand.

What's more, Hydro-Pruf is easier, faster and more economical to use, for these reasons:

APPLICATION EASE—readily miscible in cold water... applies equally well from hot or cold solutions... does not build up on rolls... **can be run all day without stopping machine to wash.**

FULL COMPATIBILITY—can be used with all urea and melamine formaldehyde resins... and with many others of the non-curing types.

GREATER ECONOMY—ease, speed and efficiency of application... lower bath concentration.. higher production.

FABRIC VERSATILITY—excellent on most fabrics: acetate and viscose... both spun and filament... cotton ...wool... silk... nylon and other synthetics.

Write for Hydro-Pruf Booklet and Technical Service Bulletin

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TEXTILE INDUSTRIES

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Personal NOTES ABOUT MEN YOU KNOW

Dublin Finishing, having been promoted from head dyer; **Bob Green,** formerly assistant, is now superintendent at Newton; **Claude Moore,** superintendent at McEwen; **Tony Quinn** heads the Vance plant; **Herbert Binford** is second shift weave room supervisor at South Hill; **Dave McCollum** is open stock warehouse supervisor at Dublin; **Glen Fulp,** first shift supervisor at Reidsville; **Clarence Chandler,** third shift supervisor in the weave room at Central Falls; and **Rufus Watson** and **Robert Nixon,** fixing group leaders at Reidsville.

William H. Carter, president of the William Carter Co., recently celebrated his 90th birthday at a Gay 90's party on the lawn of the company's Needham Heights office.

Ivan Waller has been appointed to the newly created position of executive vice-president and general manager of Chipman-LaCrosse Hosiery Mills, East Flat Rock, N. C.

Robert W. McCullough, formerly director of manufacturing, has been made assistant to the president of Collins & Aikman Corp. **W. Roland Keen,** director of research and technical control, will assume the duties of director of manufacturing.

The honorary degree of Doctor of Science was awarded at Lowell Technological Institute to **James R. Killian, Jr.,** president of Massachusetts Institute of Technology; **Kenneth R. Fox,** vice-president of Fabric Research Laboratories; and **Martin J. Lydon,** president of Lowell Technological Institute.

Paul B. Halstead has retired as head of Cone Mills Inc.'s statistical department.

Cotton Manufacturers Association of Georgia has announced the election of **A. C. Parker,** Goodyear Mills, Cartersville, Ga., as chairman of the personnel managers' division. He

Picker Overhauling Is Simple
When You Depend On . . .

Aldrich Repair Service

We furnish skilled men for reworking pickers, and can deliver to these men any needed parts within 24 hours in most southern states, and within 48 hours to almost any cotton mill in the United States. This makes thorough overhauling a simple matter. Anything needed for a good job can be had at once, while the machine is down for repairs.

If you do your own overhauling, this speedy delivery service is just as valuable. You don't have to wait for repair parts — they are there when you want them.

We manufacture and install complete blending, opening, and picking systems for cotton and synthetics, and cleaning systems for cotton.

ALDRICH MACHINE WORKS

Greenwood, South Carolina

END-O*
the quick trip ticket for rolls of cloth

*traveling lengthwise

rolls of cloth move safely and surely on

ALVEY Roll Conveyors

The Alvey conveyor is efficient and work-saving. Space is conserved, and travel time is reduced from one department to the next.

This is another of the many specialized systems which Alvey can provide to save time, space and operating costs in your textile mill. Your letter will bring an Alvey engineer to explain the advantages of an engineered conveyor system in your operations. Write today!

Every time you MANhandle a package, you add to the cost and nothing to the value; therefore, put your packages on Alvey Conveyors that are engineered to fit your individual requirements.

ALVEY

ALVEY CONVEYOR MANUFACTURING COMPANY
9306 Olive Street Road, St. Louis 24, Missouri
BRANCH OFFICES IN PRINCIPAL CITIES

154

Personal NOTES ABOUT MEN YOU KNOW

succeeds O. C. Philips of Swift Manufacturing Co. Other officers are: first vice-chairman, **Lewis Hallford,** Clarksville (Ga.) Mills; second vice-chairman, **James E. Boyers,** Thomaston (Ga.) Mills. New directors are: **E. J. Kelley,** Burlington Mills, Brighton Division, Shannon, Ga.; **W. L. Maige, Jr.,** Moultrie (Ga.) Cotton Mills; **Ed Parker,** Callaway Mills Co., LaGrange, Ga.; and **Hall Brooks,** Chicopee Manufacturing Corp., Gainesville, Ga.

Howard Rollins has been made general superintendent of Dover, Dora, and Ora Mills, Shelby, N. C.

John Peterson, formerly with White Brothers, Winchendon Springs, Mass., is now assistant superintendent at Falls Company, Norwich, Conn.

Wesley H. Suit, head of the standards department of Fieldcrest Mills, was recently elected president of the Society for the Advancement of Management, Greensboro, N. C., area chapter.

David E. Philpott recently retired from the Georgia Institute of Technology after 48 years as lab instructor in yarn manufacturing. Students, faculty, and alumni gathered in the Harrison Hightower Auditor-

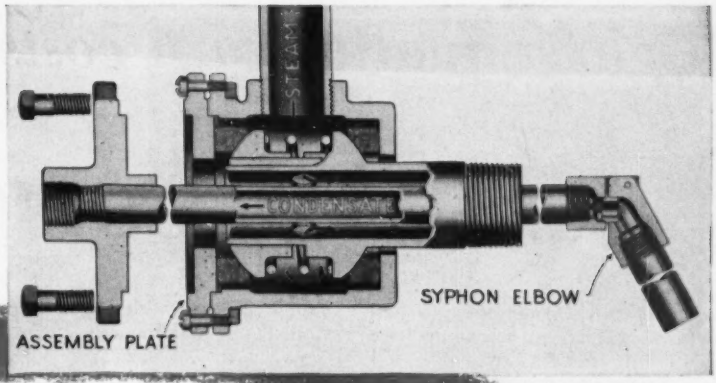
ium to do honor to Mr. Philpott, presenting him with a silver tray and a check for $885. Shown making the presentation is Bob Wynn (left), chairman of the student committee, Mr. Philpott (center), and looking on is Mrs. Philpott.

Henry J. Bell has been elected a vice-president of Fruit of the Loom Corporation. All other officers were re-elected.

Arthur Hammer, recently comptroller of the four Mack Kahn Mills in Manchester, N. H., is now working

TYPE JP

Johnson Joint, with syphon elbow. Assembly plate holds joint mechanism in place when head is removed. Syphon pipe and elbow can be inserted or withdrawn without removing the joint body. (This can also be furnished with lugs cast on body for simple rod support.)



Perfect Combinations . . .

In each of these pictures you'll see a combination of welcome new ideas that can stop a lot of operating headaches.

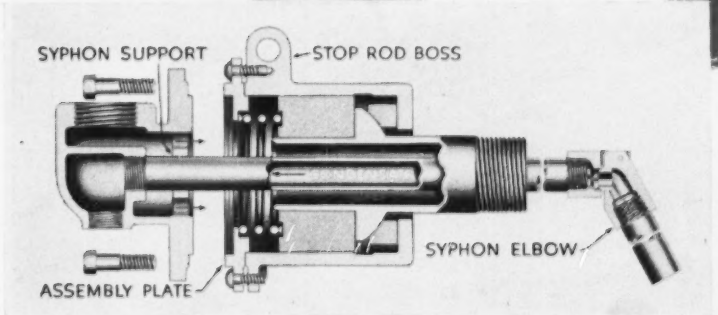
To begin with these are newly redesigned Johnson Joints. They remain completely packless, self-lubricating and self-adjusting as always. But now they are smaller size, lighter weight, with a lower price tag . . . and with wearing parts heavied up to stretch service life as much as 25%.

Teamed up with these is the new Johnson Syphon Elbow. It permits the use of straight pipe for syphon connection, seats itself by its own weight when in position.

Note the special assembly plate in each joint which holds internal parts in position when the head is removed. This means the syphon pipe and elbow can be inserted or withdrawn right through the joint, in many cases while the machine is operating.

Write for New Literature

JOHNSON JOINTS and the new JOHNSON SYPHON ELBOWS



TYPE SBP

Johnson Joint, with syphon elbow. This is a self-supporting design ideal for replacement use where suitable supports cannot be readily provided. Special assembly plate permits removal of head and syphon pipe without disturbing joint proper.

Products of The Johnson Corporation

815 Wood St., Three Rivers, Mich.

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers
Direct Operated Solenoid Valves • "Instant" Steam Water Heaters

Highest quality yarn costs less with

DAYCO Cots and Long

Costs go down and performance goes up from the moment you equip your frames with NEW Dayco EW-465 Cots. It's the amazing exclusive ingredient, Ibrocol, added to the synthetic rubber blend in these NEW Dayco Cots that accounts for this much-improved efficiency.

Ibrocol's chemical and mechanical action gives these cots just the right coefficient of friction needed to combat eyebrowing. With new Dayco EW-465 Cots, only the short staple fibres are removed from the yarn and are transferred well back on the clearer board away from the eyebrowing position. This means less eyebrowing and superior yarn quality for you on every frame equipped with Dayco EW-465 Cots. Equip your frames today!

Important savings in time and labor are yours, too, because reduced eyebrowing means less waste and fewer cleanings of the clearer board. Cot costs are lowered because Ibrocol retards slicking and glazing, therefore, fewer buffings are required. In addition, Daycos give you longer service life for they do not pit, groove, or develop flat spots.

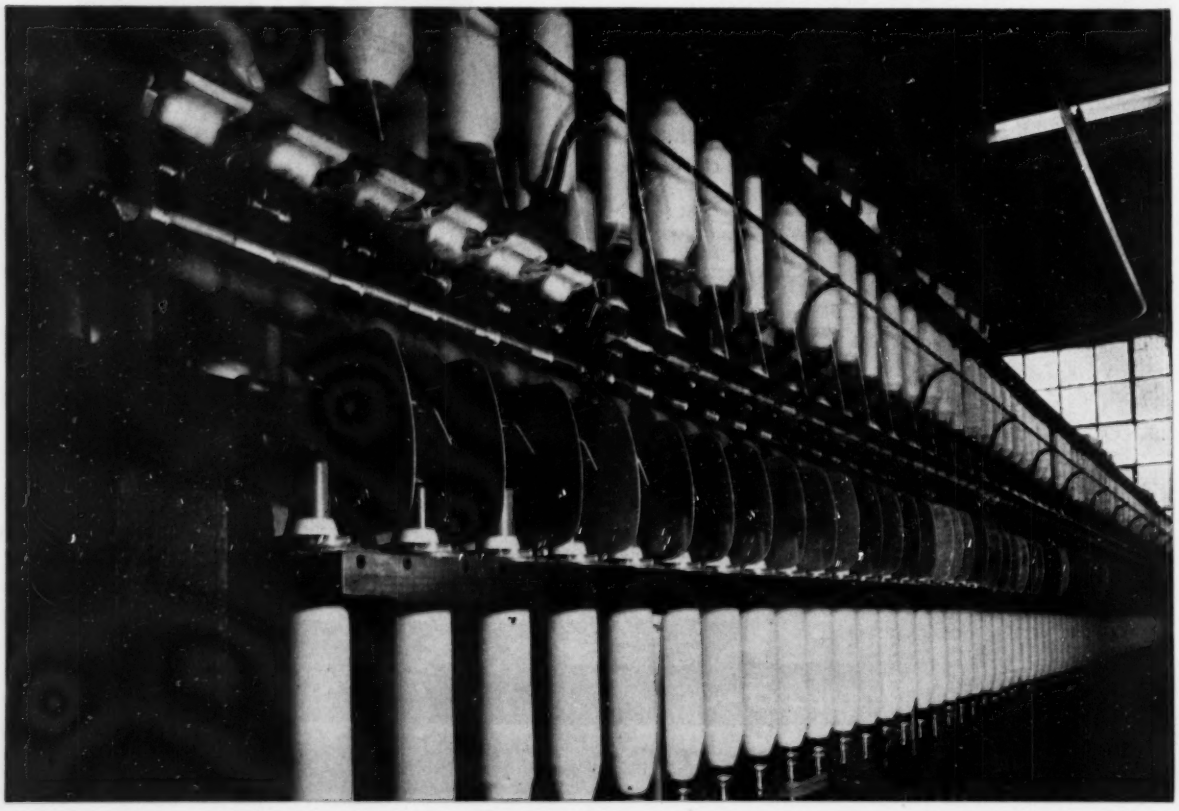
So for trouble-free spinning of higher quality yarn—natural or synthetic—convert your mill to Dayco IBROCOL Cots. For complete details see your nearest Dayton representative or mail coupon on the opposite page.

Check these Dayco Features against any other Cot

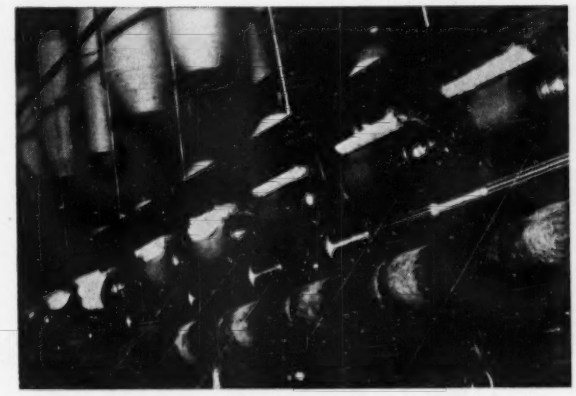
DAYCO COTS

- Successfully combat eyebrowing
- Create fewer lap ups and ends down
- Require fewer buffings
- Don't groove, pit or develop flat spots
- Unaffected by moisture or temperature changes
- Need fewer clearer board cleanings
- Draft better quality yarn
- Lower overall cot costs

New DAYCO Cot EW-465 combats eyebrowing, increases yarn quality



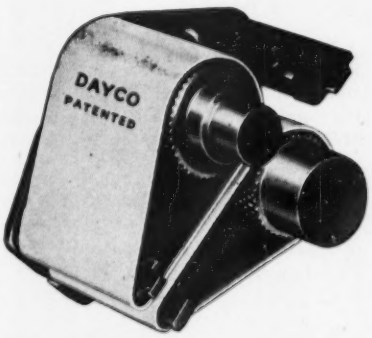
Draft Aprons



Note complete lack of eyebrowing on Dayco cots at right of frame as against ordinary cots at left. All cots ran same length of time.

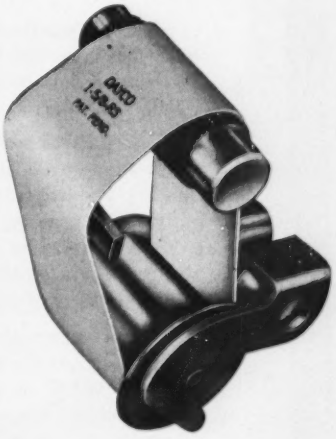
Clearer board used with Dayco EW-465 Cots after normal run. Waste is well back under the clearer board away from eyebrowing position.

DAYCO Long Draft Aprons improve yarn quality, save time and money



Get up to 10% more uniformity in your yarn with Dayco Aprons that give better fibre control in the drafting area. Precision engineered to close tolerances, these single and double long-wearing aprons have a constant drafting ability that never varies . . . assures greater yarn uniformity.

Since Daycos never stretch or take a permanent set, you'll get faster starts after week-end shutdowns. That means savings for you in time, money and labor — plus increased uniformity in Dayco drafted yarn. Mail the coupon below for complete details.



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Since 1905

Textile Products for Better Spinning and Weaving

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Woodside Bldg., Greenville, S. C.

Dayton Rubber Company, Textile Division, Dept. 367
Woodside Building, Greenville, S. C.

Tell me more about how I can get higher quality yarn at lower cost.

☐ Send literature on Dayco Cots and Long Draft Aprons

☐ Have your representative call

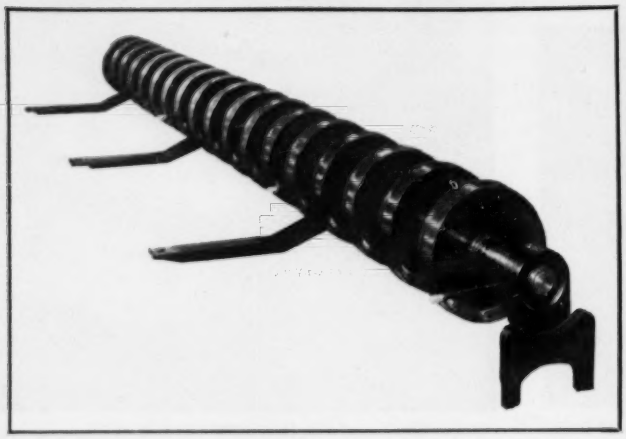
*Name*_____

*Firm*_____

*Address*_____

*City*_____ *Zone*____ *State*_____

meadows
MODERNIZERS



Meadows Individual Pulley Drives
Cost More—Worth More!

. . . but, the small extra initial cost is outweighed *many times* by the difference in maintenance cost and smoothness of operation over the years following installation.

These pulleys have a patented hub with a protector-ring inside, to prevent the set-screws from burring the shaft. Therefore they are easy to adjust or to remove from the shaft. They are perfectly balanced, and mounted on SAE 1040 ground and polished steel shafting. The shafting is mounted in heavy duty self-aligning ball bearings.

This Drive, properly installed, will give *years* and *years* of trouble-free service. No heads to pull out — no seams to split — nothing to solder — nothing to get out of balance.

If you want to get away from cylinder troubles *for keeps* — just drop us a line!

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Providence 3, Rhode Island

MEADOWS MANUFACTURING CO.
ATLANTA, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

with a number of New Hampshire mills as an independent textile consultant.

William A. Karl, president of Firestone Textiles, a division of The Firestone Tire & Rubber Co., recently received an honorary master of science degree from the New Bedford Institute of Textiles and Technology.

Secretary of the Army **Robert Stevens** was recently awarded an honorary degree of Doctor of Textile Science at North Carolina State College. It was presented by Dr. Carey H. Bostian (left). Looking on (right) is Dean Malcolm E. Campbell of the School of Textiles.

Harry Hoyle, formerly superintendent of spinning, is now technical consultant for Jantzen Knitting Mills, Portland, Ore. **Os Adrian** succeeds Mr. Hoyle as superintendent of spinning.

Heading a new central engineering department at M. Lowenstein & Sons is **Charles S. Smart, Jr.,** formerly with Saco-Lowell Shops at Greenville, S. C.

R. C. Swan, who was treasurer and mill manager of the now liquidated Charlestown Woolen Mills, Keene, N. H., is now with Malden Spinning Co., Malden, Mass.

Barnard Townsend has been elected financial vice-president and treasurer of the Mohawk Carpet Mills, Inc.

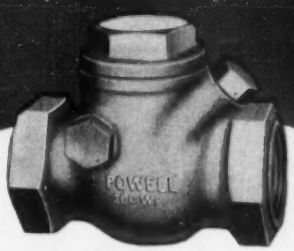
Herbert Gates, formerly with E-Z Mills, Inc., Bennington, Vt., is now with Monarch Knitting Co., Ltd., as manager of its Dunville, Ont., division.

New president of the Wool Associates of the New York Cotton Exchange, Inc., is **Philip B. Weld,** Har-

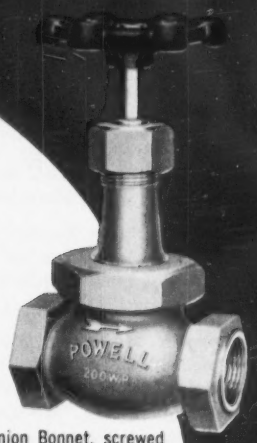
NOW! For Immediate Delivery!

MONEL* and NICKEL VALVES

Screwed-in Bonnet, Screwed end, rising stem Gate Valve for 200 W. P.



Screwed-in Cap, screwed end Swing Check Valve for 200 W. P.



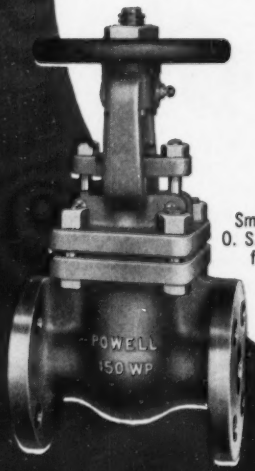
Union Bonnet, screwed end Globe Valve for 200 W. P.

HERE ARE shown a few Powell Monel Metal and Nickel Valves in stock, that can be shipped immediately on receipt of order. They are made with screwed or flanged ends, for 150 and 200 W. P. at 500° F. Sizes range from ¼" to 30".

Solid or double wedges for Gate Valves are interchangeable, precision-fitted, and accurately guided throughout their entire travel.

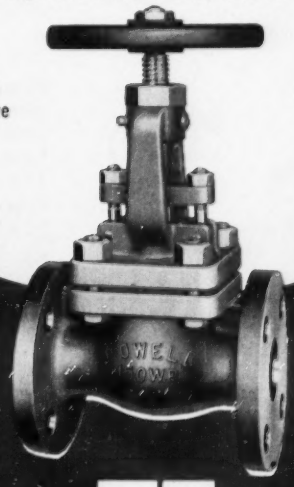
These valves conform to latest A.S.A. and M.S.S. Standards. End flanges will be furnished with plain faces. Raised, ring joint, male and female, or tongue and groove faces can be supplied on special order.

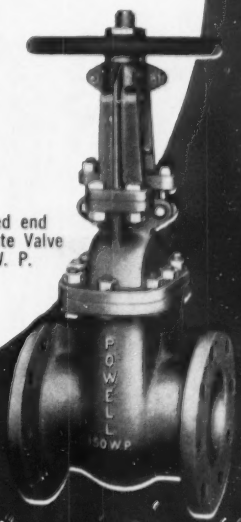
For the full details write The Wm. Powell Company
Cincinnati 22, Ohio



Small flanged end O. S. & Y. Gate Valve for 150 W. P.

Small flanged end O. S. & Y. Globe Valve for 150 W. P.





Large flanged end O. S. & Y. Gate Valve for 150 W. P.

*Registered trade name of The International Nickel Co.

Powell Valves

108th year

Personal NOTES ABOUT MEN YOU KNOW

ris, Upham & Co., New York. Newly elected to the board of governors were: **E. Kent Allen** of Abbot Worsted Co.; **Elio Bicknell:** Elliot W. Brown, Dewey, Gould & Co.; **Edward L. Burnham,** Draper Top Co.; **Morton H. Darman,** Arthur I. Darman Co., Inc.; **Bradford E. Haley,** Nichols & Co.; **E. Bradford Keith,** Walker Top Associates; **W. Gordon McCabe, Jr.,** J. P. Stevens & Co., Inc.; **Norman L. Sirota,** Sirota & Co.; **William G. Wigton,** Orvis Brothers & Co.; and **John M. Williams,** Royce & Co.

Clifton E. Allen has succeeded Arthur Babbitt, retired, as manager of Monument Mills, Housatonic, Mass.

Hans W. Hilgert, Dundee Mills, Inc., Clifton, N. J., is now on the executive committee of The National Federation of Textiles.

George V. Meehan is now president of Powdrell & Alexander, Inc. He succeeds **George H. Jackson,** now vice-president. Mr. Meehan is also president of Continental Mills in Lewiston, Me., and Mills, Inc., of Providence.

Dost Mohammed Sandila of Karachi, Pakistan, is shown setting the rolls of a conventional 4-roll drawing frame, used for research on cotton processing at the Southern Regional Research Laboratory of the USDA Southern Utilization Research Branch. Mr. Sandila is in the United

States to learn American methods of research to improve the manufacture of cotton textile products in preparation for his work as supervisor of cotton testing and spinning of the new Institute of Cotton Research and Technology at Karachi. He recently began a one-year period of in-residence training in cotton research at the Southern Laboratory in New Orleans.

Arthur C. McEwen, general manager, has been elected executive vice-president of the North Star Woolen Co.

Bernard E. Sullivan is now president and chairman of the board of O'Brien Textiles Corp., Detroit, Mich. He was previously vice-president and sales manager.

William R. Edwards recently resigned, because of poor health, as manager of the woolen and worsted division of Pacific Mills, Lawrence, Mass.

Maj. Gen. Robert P. Hollis was recently appointed commanding general of the Philadelphia QM Depot.

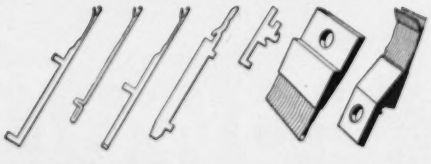
Adolph Kalafarski succeeds William Hyland as superintendent of the knitting room of Ware (Mass.) Knitters Inc.

The 1954 "Man of the Year" of the North Carolina State College Chapter

From dawn 'til dark, man enjoys wearing knitted garments — especially top quality knitted-wear produced with the finest knitting tools — Arrow Latch Needles, Parts and Leaded Assemblies. Textile can equip every make of machine — and deliver from stocks in Reading, Pa., Asheboro, N. C. and Manchester, N. H.

Arrow

LATCH NEEDLES



Wire Products Division

TEXTILE MACHINE WORKS, READING, PENNA.

of Kappa Tau Beta, professional knitting fraternity, is **Clyde W. Gordon,** executive vice-president and general manager of the Standard Hosiery Mills, Inc., Burlington, N. C.

Phoenix Hosiery Co. recently elected three new vice-presidents: **Ted Friedlander, Jr.; Joseph F. Lesac;** and **A. Foster Sheller.** Other officers were re-elected.

Newly elected president of Canada's Silk & Rayon Institute is **Brinley Taylor,** vice-president and director of Courtaulds (Canada), Ltd. **Gerald L. Bruck,** president of Bruck Mills, Ltd., succeeds Mr. Taylor as vice-president of the Institute.

Arthur Tousignant has been made a vice-president of Spofford Mills, Inc., Wilmington, N. C., and will continue as general manager.

George Davis, formerly with J. M. Geilenberg & Sons, Malboro, N. H., is now co-proprietor of Southwell Manufacturing Co.

Dr. James H. Wakelin has resigned as director of research at Textile Research Institute but will continue his connection as research associate. **Dr. J. H. Dillon,** director of the Institute, will again be responsible for the research program, assisted by **Dr. Howard J. White** and **Dr. Helmut Wakeham** as associate directors; and **Dr. John Menkart** and **Dr. Joseph H. Dusenbury** as assistant directors.

At the annual meeting of the Textile Technical Federation of Canada, co-ordinating body of six Canadian textile technical groups, **John W. Millichamp,** production co-ordinator for Canadian Cottons Limited, Montreal, was re-elected president. Vice-presidents are: **E. A. Black,** manager, Worsted Spinning Division, York Knitting Mills, Toronto; and **F. J. Knight,** Hubbard Felt Co. Ltd., Montreal. **J. A. Dixon,** assistant general sales manager, Courtaulds (Canada) Limited, Montreal, is honorary treasurer; and **Dr. L. J. Sheps,** vice-president of Trilon Chemicals Limited, Montreal, is director. **Eric Dawber** continues as executive secretary.

Jack Goldbarb recently donated two scholarships to the Underwear Institute to be established at the N. C. State College for research in the manufacture of underwear. Elected Honorary Members of the Institute's Board of Directors for Life were: **P. H. Hanes, Sr.,** P. H. Hanes Knitting Co.; **Rodney Wilcox Jones, Sr.,** Augusta Knitting Corp.; **Edward J. McMillan,** Standard Knitting Mills, Inc.; **Fred H. O'Hara,** Norwich Mills, Inc.; and **Victor R. Schmidt,** Queen City Textile Corp.

Frank H. Tinney, Jr., is now chief industrial engineer, Fabric Production division, of United Merchants and Manufacturers, Inc. He was formerly with the company's Elberton (Ga.) Mills plant.

Mr. Tinney

Frank Satori, formerly with High Rock Mills, Philmont, N. Y., is now overseer of weaving at Woolart Mills, Ludlow, Vt.

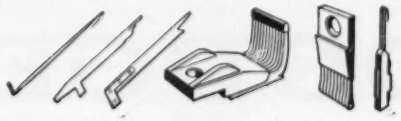
C. K. Killette, master mechanic of United States Rubber Co.'s Stark,

WHERE STRAIGHTNESS COUNTS...

Textile Spring-Beard Needles have uniform straightness — plus strength and resiliency to retain that straightness over a long period of time. For you this means less maintenance and less idle-machine time. It means perfect spacing, even stitches, and more efficient production of top quality full-fashioned stockings and warp-knitted products. Insist on Spring-Beard Needles, parts and leaded assemblies — by TEXTILE.

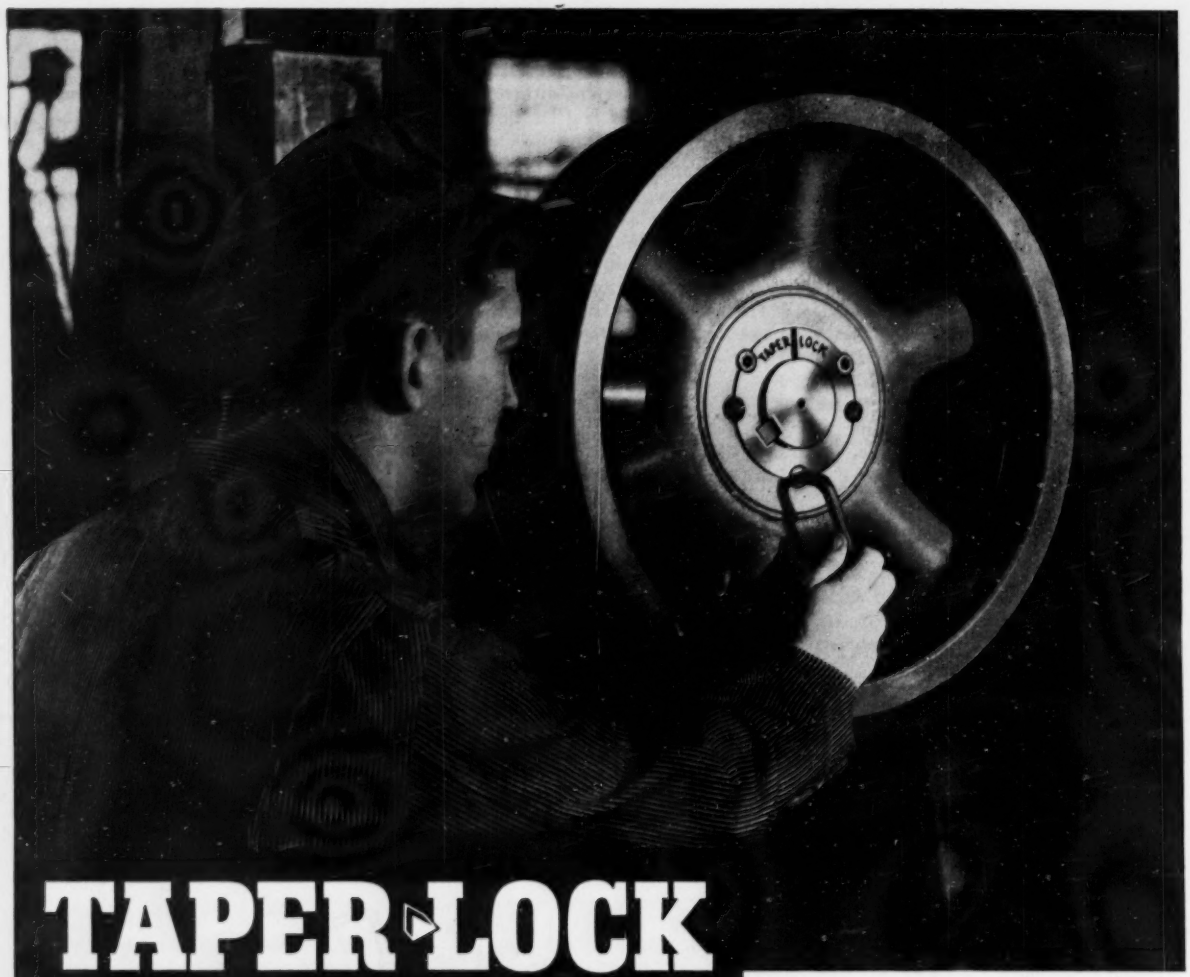
Textile

SPRING-BEARD NEEDLES



Wire Products Division

TEXTILE MACHINE WORKS, READING, PENNA.



TAPER-LOCK

A PATENTED PRODUCT OF DODGE

The simplest, surest means of mounting wheels to shafts!

Slip it on the shaft, line it up and tighten while sighting! Mount sheaves, sprockets, couplings, conveyor pulleys *quicker*—and more easily—with Taper-Lock bushings. A few twists of a hex wrench and Taper-Lock grips the shaft with the firmness of a shrunk-on fit. It comes off as easily, without shock to bearings or machinery. Bushing seats evenly along entire length of the hub—*wheels run true!*

Standardize on Taper-Lock. You save time and money and keep production rolling with these *interchangeable* bushings. See your Dodge Distributor, or write us for the full Taper-Lock story.

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new, cost-saving methods. Look for his name under "Power Transmission Machinery" in your classified telephone directory, or write us.

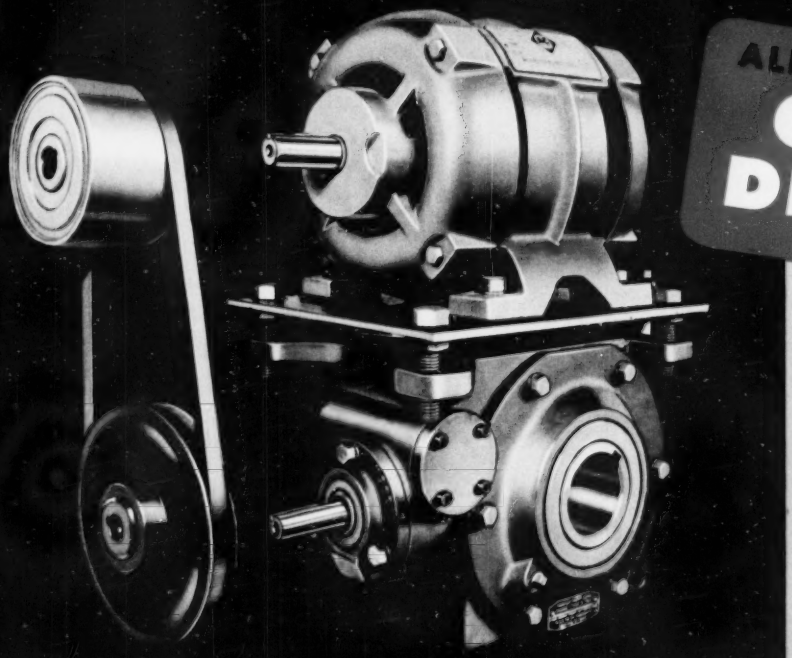
THERE'S ONLY ONE TAPER-LOCK, THE BUSHING THAT MOUNTS FLUSH!

Standardize, economize with Taper-Lock, the bushing that is interchangeable in Dodge sheaves, sprockets, couplings and conveyor pulleys. *More than 2,000,000 in use!*

DODGE

of Mishawaka, Ind.

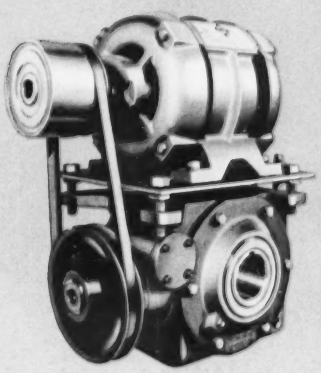
DODGE MANUFACTURING CORPORATION, 3500 UNION STREET, MISHAWAKA, INDIANA



ALLIS-CHALMERS

CARD DRIVES

Quick-Clean motor used to drive gear reducer through Texrope V-belt drive and mercury clutch. Sheave is adjustable to permit cylinder speeds between 157 and 189 rpm.



Now

Control Cards Individually... Make Card Rooms Cleaner and Safer!

INDIVIDUAL CARD DRIVES solve problems in cleanliness, safety and lighting created by overhead line shafting. With these drives, there is no hard-to-reach overhead structure to clean . . . no dirt and grease to drop into machines.

In addition, your plant will be lighter, cleaner and more modern looking without a forest of shafting and belting hanging from the ceiling. And, with these drives, there's plenty of room on the ceiling for air-conditioning equipment.

Changing to Allis-Chalmers individual card drives is simple. The complete drive unit mounts on your present card cylinder shaft. A torque arm attached to the card keeps it in place. It fits present aisle space. Note that there is no vibration or strain on the card arch, and weight of the drive does not overload the bearing.

Get details from your nearby A-C office, or distributor, or write Allis-Chalmers, Milwaukee 1, Wisconsin for Bulletin 51B7867. A-4411

Texrope and Quick-Clean are Allis-Chalmers trademarks.

ALLIS-CHALMERS

MILWAUKEE 1, WISCONSIN

A-C ALLIS-CHALMERS

New Motor sets new standards in handling oscillating loom loads

HERE IS A loom motor specifically designed to carry the loads imposed by speeds of 200 picks per minute. Rotor, stator and bearings all are oversize to give you long life, and low operating costs.

This Allis-Chalmers loom motor is designed around the findings of a thorough research program which revealed the true nature of loom loads.

As a result, this entirely new motor will handle the rapidly oscillating load which occurs during each pick. The rotor has been made extra heavy and in the largest possible diameter to provide maximum fly wheel effect (Wk^2) to meet demands for higher and higher loom speeds.

While this motor is a completely new design from top to bottom, it has been in actual use in quantity for well over a year.

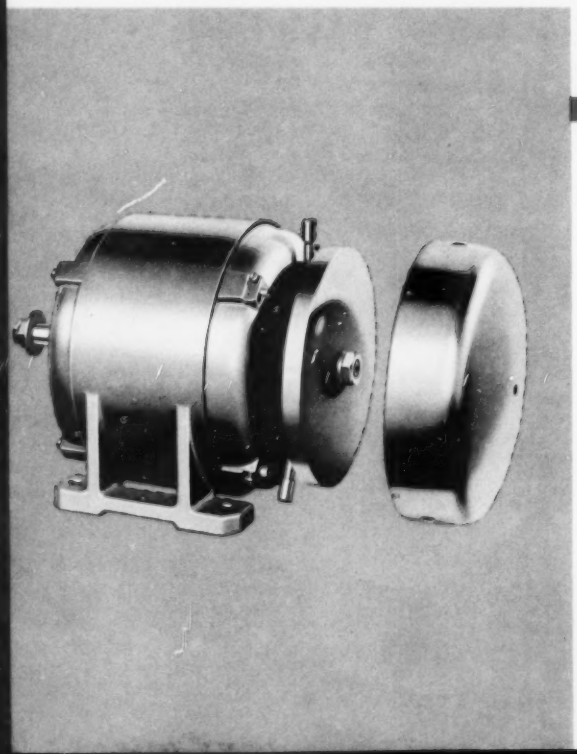
DESIGN FEATURES

1 Motor is totally enclosed, non-ventilated . . . excludes all lint from interior. Both the yoke and bearing housings are cast iron.

2 Stator is double insulated and extra large with heavy construction to meet stress of rapid load oscillation. Stator laminations are welded across back to provide rigid core.

3 Die cast rotor is of largest practical diameter. Maximum inertia in rotor plus proper design of slip makes motor operate at stable speed under pulsating load.

4 Ball bearings are oversized and of double-shielded type. (See illustration upper right.) This allows controlled migration of grease in and out of bearing, yet protects against overgreasing —the greatest cause of bearing trouble. (Optional waste-packed sleeve bearing construction shown at lower right.)



Flywheels Available for Added Inertia (Wk^2)

Allis-Chalmers loom motors are available in three inertia categories: more than 1 lb-ft^2, more than 2 lb-ft^2, and more than 3 lb-ft^2. Flywheels are available for two and three pound groups. Both of these flywheel models have the same flywheel cover and same dimensions.

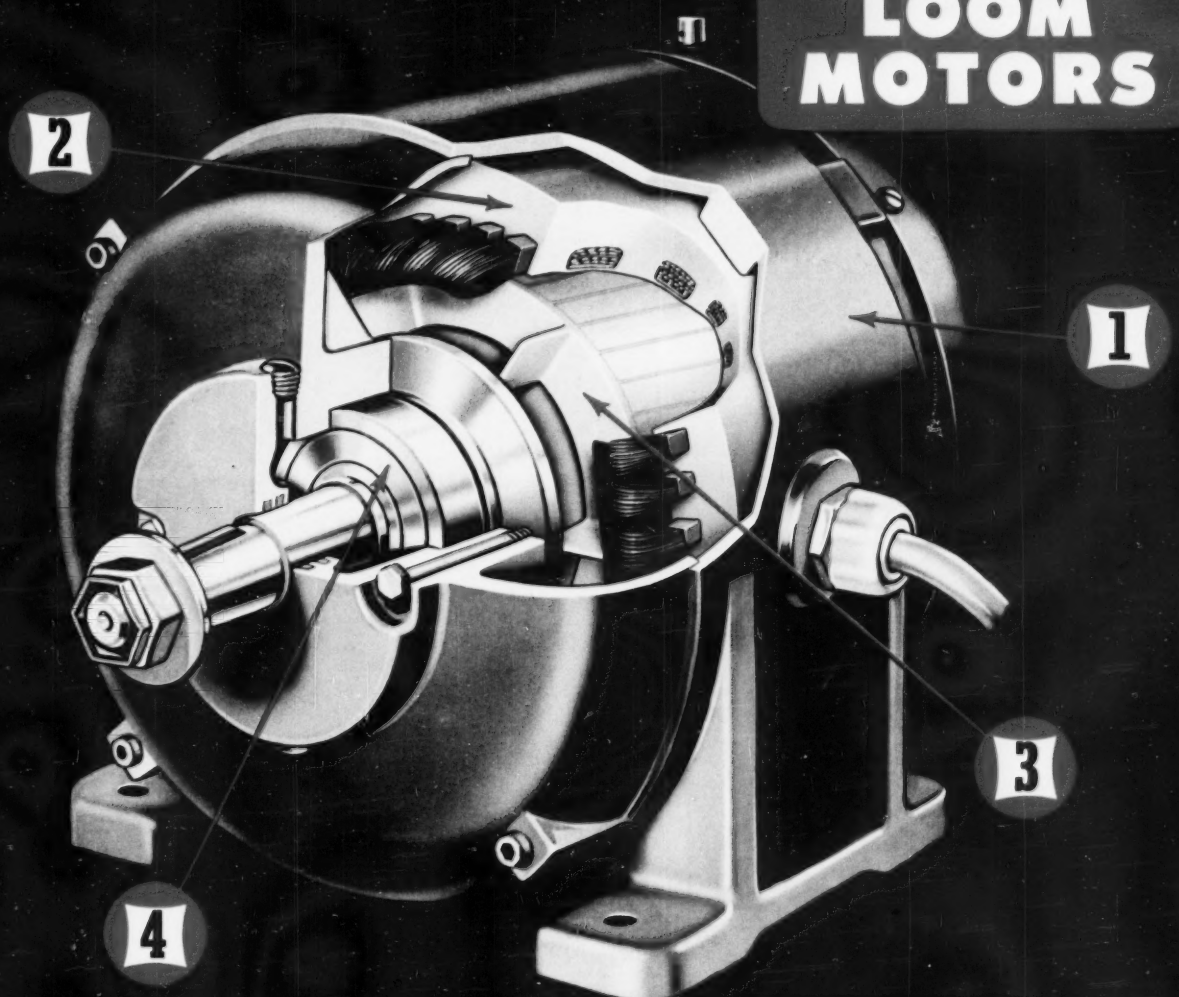
Get information from your nearby Allis-Chalmers office or distributor, or write Allis-Chalmers, Milwaukee 1, Wisconsin, for Bulletin 51B7111B.

A-C ALLIS-CHALMERS

ALLIS-

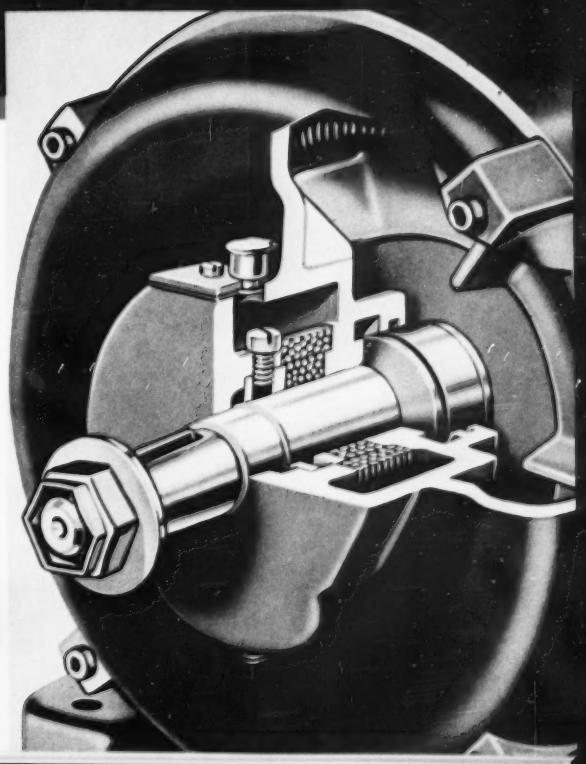
ALLIS-CHALMERS

LOOM MOTORS



Optional — Waste Packed Sleeve Bearing

Wool waste saturated with oil is used to lubricate shaft and bronze sleeve. Slot in upper side of sleeve permits waste to come in direct contact with load carrying area of shaft. Spring-lidded oil cup is provided on top side of bearing to simplify oiling. Waste can be removed easily by removing plate on top of bearing housing. Excess oil drains to outside to prevent damage to windings.

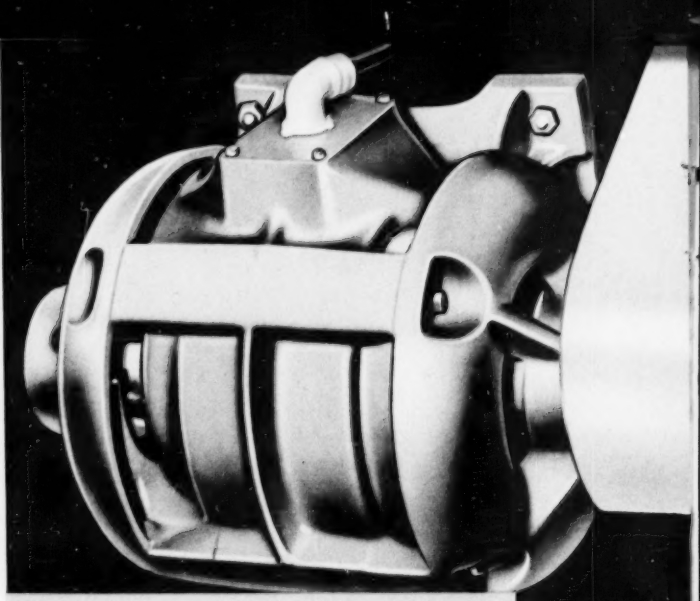


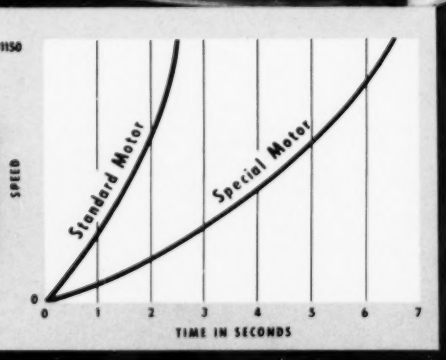
CHALMERS

Slow, Smooth Starts — Without Special Control

Smooth acceleration, fine jogging using Allis-Chalmers roving frame motor, reduces ends down, helps produce uniform roving. No special resistors—no acceleration reducing clutches — no special control required.

These motors take almost three times as long to accelerate as a standard motor. E-v-e-n tension is provided on the roving frame during starting periods. Special conduit box connections permit relatively high torque when required, such as during frame break-in period.





ALLIS-CHALMERS
Roving Frame Drives

Get Specialized Control Engineered with the Drive

A LINE of full voltage and reduced voltage motor starters is available to meet the requirements of any type of textile motor drive.

Typical is this new loom motor manual starter. Its toggle action is preferable to push button operation for reasons of convenience when mounting starter in high or low positions.

Loom switches and slow speed starters for card drives, and roving frame drives are also available.

Solve your control problems along with your drive problems by calling an Allis-Chalmers Authorized Distributor or District Office. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.

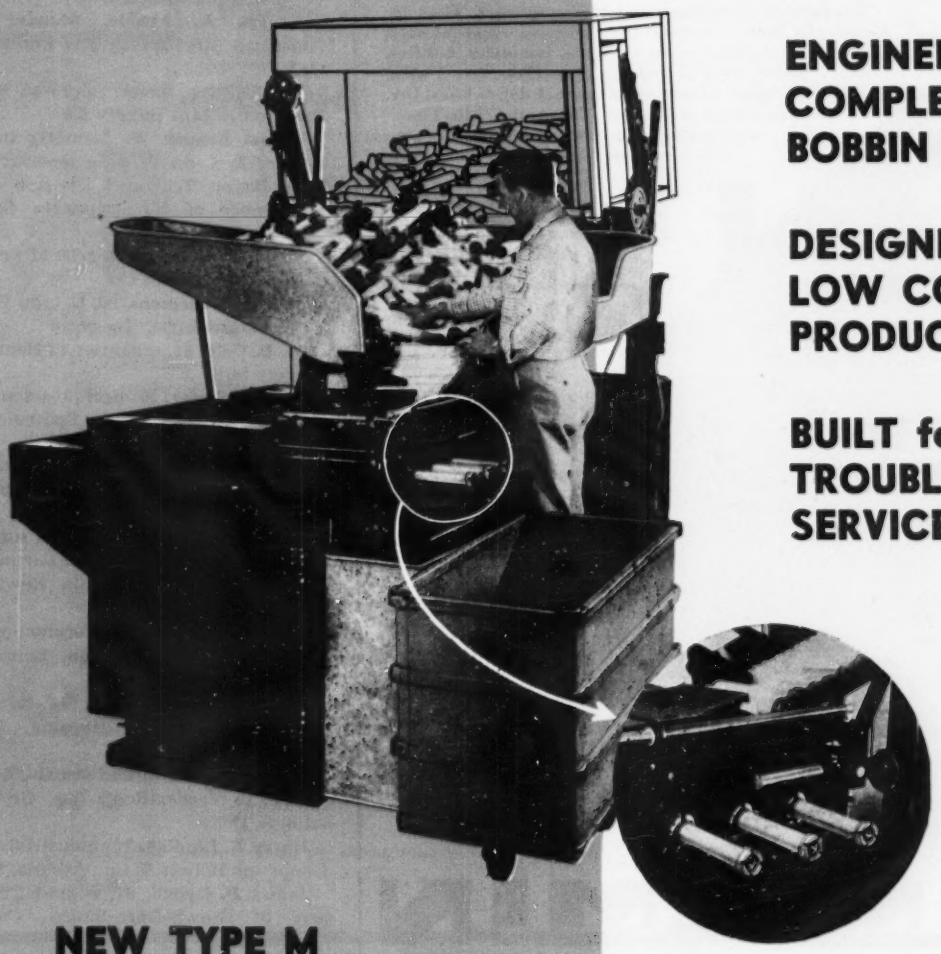
ALLIS-CHALMERS

MILWAUKEE 1, WISCONSIN

A-C ALLIS-CHALMERS

NEW!

MODERN *ROVING* BOBBIN CLEANER



ENGINEERED for COMPLETE BOBBIN SAFETY

DESIGNED for LOW COST PRODUCTION

BUILT for TROUBLE-FREE SERVICE

NEW TYPE M
Works equally well on
Cotton, Synthetics, or Wool . . . . . .

Cleans three bobbins at each stroke — 60 per minute at the low cycle speed of 20 strokes. Waste is removed by steel jaws of a new design, so shaped that they cannot nick bobbin or mar bobbin finish.

THE Terrell MACHINE COMPANY, INCORPORATED

CHARLOTTE, NORTH CAROLINA

Can't rust out!

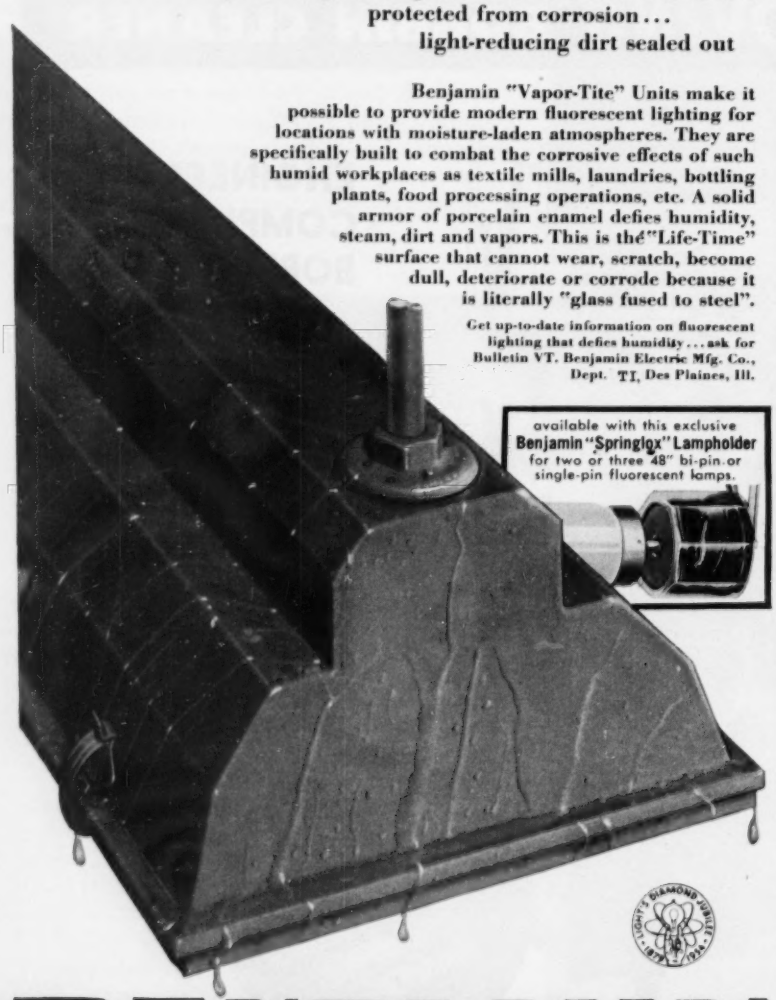
no cracks or crevices... no place for rust to get a foothold... seamless, one-piece housing with unbroken surface of "Life-Time" Porcelain Enamel!

No service breaks due to humidity!

poor lamp-starting eliminated... electric contacts protected from corrosion... light-reducing dirt sealed out

Benjamin "Vapor-Tite" Units make it possible to provide modern fluorescent lighting for locations with moisture-laden atmospheres. They are specifically built to combat the corrosive effects of such humid workplaces as textile mills, laundries, bottling plants, food processing operations, etc. A solid armor of porcelain enamel defies humidity, steam, dirt and vapors. This is the "Life-Time" surface that cannot wear, scratch, become dull, deteriorate or corrode because it is literally "glass fused to steel".

Get up-to-date information on fluorescent lighting that defies humidity... ask for Bulletin VT. Benjamin Electric Mfg. Co., Dept. TI, Des Plaines, Ill.


available with this exclusive
Benjamin "Springlox" Lampholder
for two or three 48" bi-pin or
single-pin fluorescent lamps.

BENJAMIN
TRADE MARK

6821

"VAPOR-TITE"

Sold exclusively through electrical distributors

A Product of Benjamin Electric Mfg. Co.
makers of famous Benjamin and Leader Line lighting equipment and Sound Signals for Industry, Institutions and Commerce.

Personal NOTES ABOUT MEN YOU KNOW

Reid, and Asbeston plants in Georgia, retired May 1 on his 65th birthday. Mr. Kellette's service with the firm dates back to 1924.

Obituaries

C. Dudley Armstrong, 65, director of Armstrong Cork Co.

George A. Arnold, founder of American Silk Dyeing and Finishing Co.

Ty C. Bass, senior salesman with the Textile Mill Supply Co.

Ernest Benger, 68, formerly manager of E. I. du Pont de Nemours & Co.'s Rayon Technical Division and a member of the Delaware State Senate.

Magardich Bogosian, retired president of Union Silk Co.

Harold S. Clemens, 56, E. I. du Pont de Nemours & Co., Inc.

W. B. Cole, 81, organizer of Hannah Pickett Mill.

Ward Delaney, 59, first president of the Institute of Textile Technology, Charlottesville, Va.

John R. Dodson, 85, former vice-president and treasurer of Jantzen, Inc.

Clinton E. Drum, 49, general superintendent of the finishing department at Whenball Hosiery Mill, Newton, N. C.

W. H. Hardeman, 77, former manager of the Ella Division, Consolidated Textiles, Inc.

Arthur S. Harding, 77, former president of Erben-Harding Co., Philadelphia, Pa.

Edwin Howard, 85, textile consultant to Veeder-Root, Inc., Greenville, S. C.

Harry E. Lindley, 70, industrial engineer for Robert & Co., Atlanta, Ga.

James P. Lynch, 87, retired treasurer of Brown-Durrell Co., Cambridge, Mass.

Henry D. Mercer, 67, vice-president of Mill Factors Corp.

Arthur W. Metz, 76, treasurer of Century Silk Co.

Morris Pauker, 64, founder and partner of Pauker Brothers.

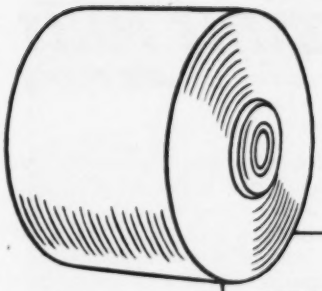
Cooper Powers, 49, formerly office manager of Quitman Mills, Inc.

Maurice D. Rothschild, 58, associated with David Rothschild Co.

S. F. Toupin, 52, director of the St. Hyacinthe Textile School, St. Hyacinthe, Que.

LARGE PACKAGES HAVE ADVANTAGES

in the steps which FOLLOW THE SPINNING

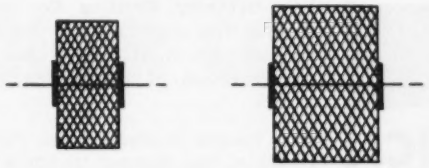


SPINNING

12" Bobbin — 3" Ring — 12 oz. Bobbin
= 1.33 Bob/lb. — 15,000 Yds.
9" Bobbin — 2" Ring — 3.85 oz. Bobbin
= 4.16 Bob/lb. — 5,000 Yds.

3 TIMES As Much Yardage On Bobbin

SPOOLING

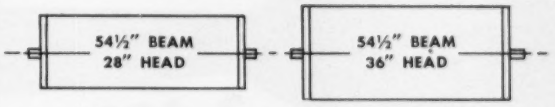


TYPE "C" CHEESE	TYPE "D" CHEESE
2.38 LBS.	6.00 LBS.
48,000 YDS.	120,000 YDS.

2.5 TIMES

AS MUCH YARDAGE PER CHEESE

WARPING



28" BEAM	36" BEAM	40" BEAM
530 LBS.	875 LBS.	1,050 LBS.
24,000 YDS.	40,000 YDS.	40,000 YDS.
445 ENDS	441 ENDS	529 ENDS
BEAMS PER CHEESE	BEAMS PER CHEESE	BEAMS PER CHEESE
TYPE "C"-2 TYPE "D"-5	TYPE "C"-1 TYPE "D"-3	TYPE "C"-1 TYPE "D"-3

SLASHING

Assuming 1,200 yds. per Loom Beam

28" BEAM	36" BEAM	40" BEAM
20 Loom Beams Per Set	33 Loom Beams Per Set	39 Loom Beams Per Set
Average Slasher Creelings per 120-hr. Week		
5.68	3.67	3.16

TWISTING

2.38 LB. CHEESE	6.00 LB. CHEESE
48,000 YDS. PER CHEESE	120,000 YDS. PER CHEESE

2.5 TIMES
AS MANY BOBBINS CAN BE TWISTED
PER CREELING

Note: 24s Yarn Assumed in All Comparisons

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. — GREENVILLE, S. C., U.S.A. — MANCHESTER, ENGLAND — MUNICH, GERMANY

INDIA	MEXICO	BRAZIL	JAPAN	MIDDLE EAST
Batliboi & Company Forbes Street, Fort Bombay, India	J. Rabasa Isabel la Catolica 45-913 Apartado 7348 Mexico D.F., Mexico	Quimanil S.A. Anilinas e Representacoes Rua Glicerio 537/547 Caixa 5658 e 3431 Sao Paulo, Brazil	Nanko Bussan K. K. Sampin Building Kitakyutaro-machi 3-chome Higashi-ku, Osaka, Janan	Arlind Corporation 65 Bedford Street Stamford, Connecticut

Your Problem Solved!

Strength -- National bobbins with their heavy gauge aluminum barrels, withstand the crushing effect of man-made yarns.

Extra-length bearings assure long spindle and bobbin life. Base head remains tight.

Balance -- These precision bobbins run true at today's high speeds. National technicians test every precision bobbin for balance on the most modern equipment.

Concentricity -- Made of aluminum and Phenolite, this National Bobbin cannot be distorted by moisture or wear—giving you greater concentricity and true balance after long use.

1+2+3=any precision bobbin from Lestershire and mean longer bobbin and spindle life, and superior performance.

NATIONAL VULCANIZED FIBRE CO.
Lestershire Spool Division
140 Baldwin Street **Johnson City, N. Y.**

BRANCH OFFICES AND TECHNICAL SERVICES:
National Vulcanized Fibre Co.
New Haven, Conn. Chicago, Ill. Baltimore, Md. Detroit, Mich.
St. Louis, Mo. Philadelphia, Pa. Pittsburgh, Pa.
New York, N. Y. Rochester, N. Y. Cincinnati, Ohio Cleveland, Ohio
Greenville Textile Supply Co. Greenville, S. C.
Odell Mill Supply Co. Greensboro, N. C.
National Fibre Co. of Canada, Ltd. Toronto, Ontario

What the TEXTILE MILLS are doing

Alden Mills are constructing an addition to the Meridian, Miss., mill with about 10,000 sq ft floor space. Arrangements have been concluded with officials at Independence, La., for construction of a one-story mill there, to be occupied under long-term lease.

Anderson (S. C.) Narrow Fabrics, Inc., recently organized, will operate a mill for manufacture of cotton fabrics. Edgar A. Ross is president.

Barberry Knitting Co. has completed a new factory building at Lakeport, N. H., and is now in full production of full-fashioned sweaters.

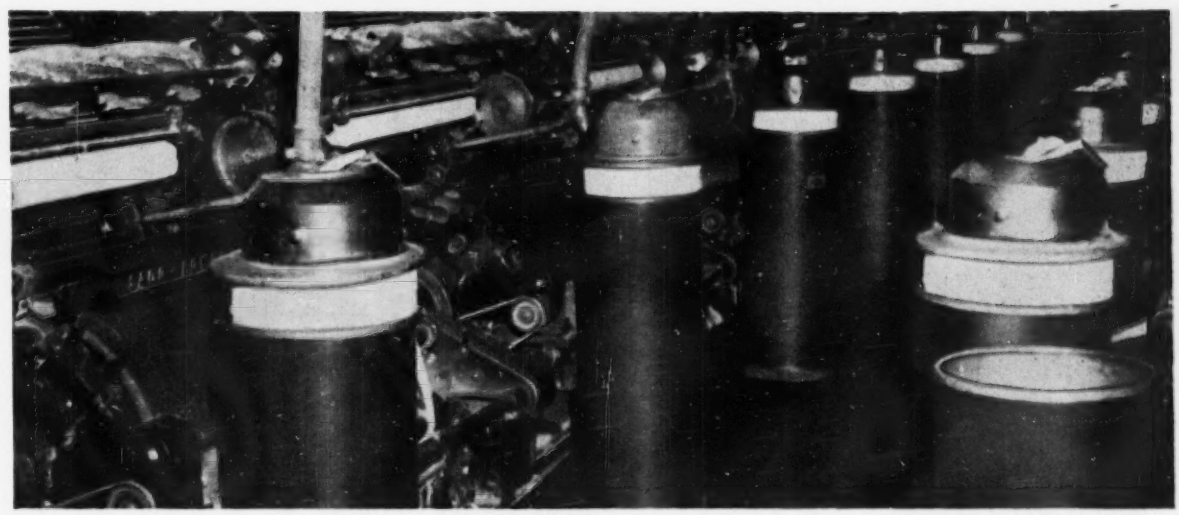
Bonnie Products Corp., Fall River Mass., has changed its name to **Barclay Mills.**

Berkshire Knitting Mills, Reading Pa., have made arrangements for operation of a mill at Bogota, Colombia.

The Fiber Glass Products division of **Bigelow-Sanford Carpet Co.,** Thompsonville, Conn., has installed additional production lines to more than double output of glass mats. The Georgia Rug Mills division, at Summerville, Ga., is constructing a new one-story addition, to be used for warehouse service.

Philip W. J. Braumfels, former manager of the High Rock Mills, Philmont, N. Y., has been operating in a portion of one of the buildings under the name **Phil Braumfels.** At present production is the dyeing and stripping of wool and synthetic waste, but Mr. Braumfels plans to have an integrated woolen yarn mill shortly.

Burlington Mills Corp. recently distributed a brochure telling the



COILER CONVERSIONS

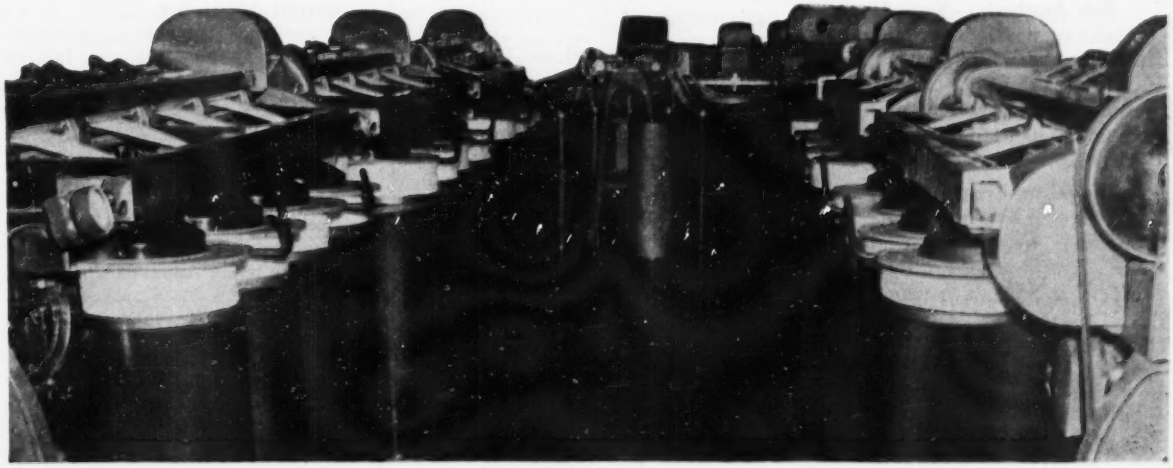
that pay for themselves

Now you can convert to larger can sizes on card and drawing frames and effect sufficient savings in actual operating costs to pay for the conversion in less than one year's time. This has been the experience of several mill operators according to actual case reports in Southern States' files.

Southern States conversions afford the best use of larger can capacity at lowest cost by using as many of the existing parts as possible. Recognizing that converting to larger cans presents an individual problem to each mill, depending on methods of handling sliver and condition of existing equipment, Southern States offers a wide variety of conversion units with a choice of coil and can dimension.

Now you can convert to larger cans with simplified handling and improved quality at a price to suit your budget from the most complete line of coiler units available to the industry. Write for bulletin No. 201 today.

SOUTHERN STATES EQUIPMENT CORP.
HAMPTON, GEORGIA



How to Attack Operating Costs

Hyster 2,000-lb. Lift Truck with Cotton Load-Grab job-attachment stacks bales quickly and easily in this boxcar. No pallet is used. Load-Grab grasps bales from the sides. Load-Grab arms are interchangeable for use with pallets and other materials. Same Hyster lift truck unloads freight cars, transports box boards and loads out finished product—thus freeing manpower for other work.

HYSTER LIFT TRUCKS SPEED BALE HANDLING, LOAD AND UNLOAD WITHOUT PALLETS

Hyster materials handling equipment dealers can prove that better materials handling methods will reduce operating costs from 10% to as much as 80%! Even businesses with good profit records can often reduce operating costs *still further!* So why wait to improve your materials handling methods? Here's how to do it!

Job Analysis—Your Hyster® dealer offers a complete analysis of your present handling methods (at no obligation to you)—otherwise how would you know that you can cut your costs *still further?*

The Right Truck—Your Hyster Dealer will place the *right* industrial truck on your job, with the *right* job-attachment. Hyster offers a complete line of lift trucks, tugs, transporters, mobile cranes and Straddle Trucks—with capacities from 1,000 to 30,000 lbs — and over 100 job-attachments!

Costs Little to Own and operate. Hyster Lift Trucks often work for less than $1.50 per hour! After truck pays for itself, *all* your materials handling savings are pure profit.

Complete Service—Besides job analysis, your Hyster Dealer near you offers complete parts and field service, modern shop facilities, and specially-trained mechanics. Call your Hyster Dealer today. You incur no obligation and you might make a great deal more profit. Or write for Booklet 1258.

THERE'S PROFIT IN
HYSTER
POWER

HYSTER COMPANY
2902-57 N. E. Clackamas.....Portland 8, Oregon
1010-57 Myers Street.....Danville, Illinois
FOUR FACTORIES: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands

HYSTER

What the TEXTILE MILLS are doing

story of its thirty years of production. Every phase of the growth of the mills is described. The company also has announced plans for a new addition to the Hosiery Finishing Mill, designed for warehouse service, and contract has been let for a mill at Scottsboro, Ala., to be equipped for manufacture of full-fashioned nylon hosiery for women.

Callaway Mills Co., LaGrange, Ga., recently awarded four-year scholarships to thirteen high school students under its scholarship plan, and granted ten awards for summer study to teachers under its educational plan. Dependents of employees of the mills or their affiliates are eligible for scholarships.

The No. 2 mill property of the former **Mandeville Mills,** Carrollton, Ga., has been purchased by a linen dyeing company. 300 men will be employed, and all types of woven cloth will be dyed and finished.

Cherokee Textile Mills, Knoxville, Tenn., has under construction a two-million dollar cotton spinning, dyeing, and weaving plant at Sevierville, Tenn.

Chicopee Manufacturing Corp. of Georgia, Gainesville, Ga., has under construction a one-story and basement addition to the plant, which will have close to 30,000 sq ft floor space.

Seniors from the Clinton, S. C., High School toured **Clinton Mills** recently, after which they were served refreshments in the Clinton Community Building.

Coastal Mills, Inc., Dillon, S. C., was recently chartered to manufacture cotton and synthetic fabrics. Jack Law is president.

Coats & Clark, Inc., its sales corporation, and associated companies, have moved to new headquarters at 430 Park Avenue, New York 22.

Dominion Silk Mills, Ltd., Toronto, Ontario, has organized a new division under the name Andalfoam Division, to manufacture foam rubber coated fabrics, under license arranged with Andrews-Alderfer Co., Akron, O.

"Cotton Made in Canada," a film written and produced by Crawley Films Ltd. for **Dominion Textile Co. Ltd.** of Montreal, shows the whole

CORN PRODUCTS REFINING COMPANY

presents

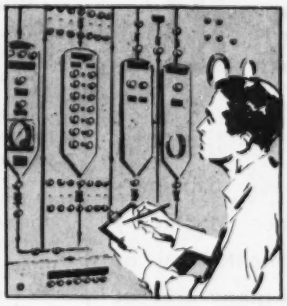
a complete line

OF

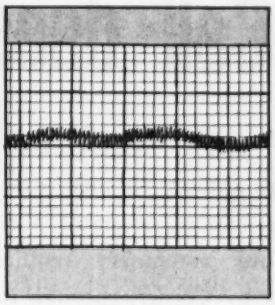
starches, gums AND dextrines

Highly recommended for their greater cleanliness, superior uniformity, stability of viscosity, and constant availability

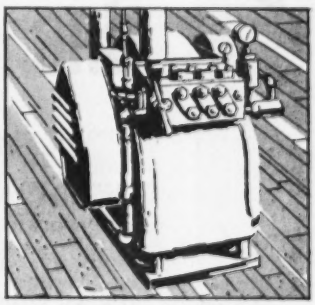
GREATER CLEANLINESS



SUPERIOR UNIFORMITY



STABILITY OF VISCOSITY



IDEAL FOR HOMOGENIZERS

Globe® brand corn starch—This starch is ideal for warp sizing carded or combed yarns where a thick boiling starch is advantageous or for use in homogenizers. Globe Pearl Corn Starch produces strong films, reducing breaks on the slasher and loom.

Eagle® brand corn starch—This thin boiling starch is popular for warp sizing carded and combed yarns. Available in all fluidities which produce viscosities required to maintain correct size concentrations for best weaving.

Hercules brand corn starches—Oxidized starches are used in a wide variety of sizing applications. They produce a smooth but tough, clear film.

Globe® Gum has been popular for many years for warp sizing spun rayon. It has the superior qualities recommended for easy de-sizing.

Globe brand extra thick starches make a smooth, lardy paste for backfilling and printing.

Globe Gum and Dextrines fill many finishing requirements. They are versatile and are in increased demand because of their application ease, and full compatibility with other size ingredients.

***TAKE ADVANTAGE** of our free technical service. Our lab and field experts will welcome the opportunity to help you with actual production problems. Write us today.

CORN PRODUCTS REFINING COMPANY • 17 BATTERY PLACE, NEW YORK 4, N. Y.

Comer's 20th year serving the textile industry

Buying or selling textile machinery?

One Call does it!

Whether you're looking for machinery, or whether you're anxious to turn some idle machinery into working capital, contact Comer Machinery Company. Your machinery requirements can be supplied either by Comer, through its many current liquidations, or at the Southern Mill Supply warehouse in Athens, Georgia—a firm cooperating with Comer in serving the entire textile industry. Call, write or wire Comer today.

COMER MACHINERY CO.

COMER MACHINERY

308 Ivy Street, N.E.
Atlanta, Georgia

What the TEXTILE MILLS are doing

process of turning raw cotton fibers into pillow slips, sheets, and printed cloth for clothing. It is being distributed in English and French by the National Film Board.

Controlling interest in the **Priscilla Worsted Mills,** Thornton, R. I., has been bought by **R. P. Collins & Co., Inc.,** Boston, Mass.

Dartmouth Finishing Co., New Bedford, Mass., has purchased additional printing and dyeing equipment.

Machinery and equipment at the mill of **Garnerville (N. Y.) Dye Works, Inc.,** have been liquidated in individual units.

Gastonia (N. C.) Knit Tubing Co. was recently organized to operate a knitting and textile processing mill. C. B. Falls, Jr., is principal incorporator.

Gilet Carbonizing Co., Inc., Lowell, Mass., has discontinued wool scouring and carbonizing, but is continuing to operate its warehouse.

Glen Raven (N. C.) Knitting Mills, Inc., has installed a complete throwing unit for its tricot mill.

A modernization and improvement program, including the installation of additional machinery and facilities, is under way at **Gold-Tex Fabrics Corp.,** Rock Hill, S. C.

Goodall Fabrics, Inc., 525 Madison Ave., New York, N. Y., has developed a 25-oz. knit-backed plastic upholstery, and is manufacturing it in six colors.

Harmony Grove Mills, Commerce, Ga., recently celebrated sixty years of continuous progress with a birthday observance climaxed by an old-fashioned barbecue. The mills have completed a modernization and expansion program under the direction of L. G. Hardman, Jr., president.

Holeproof Hosiery Co. has shut down permanently its full-fashioned hosiery knitting and auxiliary grey operations in Milwaukee, Wis. These operations are now being performed by Holeproof plants elsewhere. The employees engaged in the office and warehouse and in the dyeing, finishing, and inspection of hose are not being affected by this move. Vice-president Frankel announced that the

91 OF THE TOP 100

Better than we knew

In reading a recent independently prepared list of the 100 leading textile manufacturing firms in America, we were struck by the number of familiar names.

A close cross-check with our own files confirmed a dawning realization . . . and handed us the most pleasant surprise we've experienced in years.

Of the 100 top textile firms in the nation,
91 are users of Bahnson equipment.

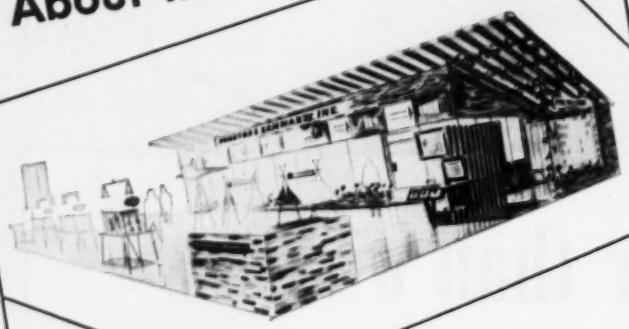
We believe this impressive preference is due in great measure to the completeness of our service . . . to the policy that every mill, every job, is an individual problem with an individual solution.

The majority of these installations are completely integrated systems . . . with Humiducts or air washers, controls, grilles, dampers and most other components designed, fabricated and installed by our own textile air conditioning specialists.

Whether your mill is large or small — your air conditioning problem simple or unique — we have the engineers, the experience, the equipment for the proper solution.

Bahnson
COMPANY
AIR CONDITIONING AND HUMIDITY CONTROL
WINSTON-SALEM, N. C.

Things I Must Remember About the



PROCTOR EXHIBIT IN BOOTH 506

Write PROCTOR *for more details on Atlantic City Exhibit*

Yarn Report Now Ready Upon Request...

The stock which you saw carded with Proctor Equipment at Atlantic City has now been spun. A report on the results is yours for the asking. *Write for it now.*

You undoubtedly recognize the booklet reproduced above. Distributed at Atlantic City, it proved to be one of the most popular publications in all Proctor history . . . probably because the Atlantic City Exhibit was one of the most forward-looking and helpful we've ever staged!

A post card in the back of that booklet provides a convenient way for you to get more information on the Proctor Equipment you saw. A steady stream of these cards has been coming in. *Mail yours now*, if you haven't done so. Or, if you've mislaid it, drop us a note for more information on

New Synthetic Card
Blending Systems
Loop Dryer-Curer
Tenter Housing
Con-O-Matic Washer
Continuous Bleach System for Tubular Knit
Redman Process Machinery
Con-O-Roll Washer
Loop Ager for Print Goods
Preboarding Machine
Roller Dryer
Dryers for Carpet
Spray Dryer

P.S. *If you've mislaid your Atlantic City Booklet, write us now for another copy & specify Bulletin 398.*

Proctor & Schwartz, Inc.
PHILADELPHIA 20, PA.

What the TEXTILE MILLS are doing

move was made because of high local and state taxes, and high labor costs.

A six-week day camp program, made possible through the support of **The Jefferson (Ga.) Mills, Inc.,** with the cooperation of the city and county boards of education, was participated in by approximately 300 youngsters in the Jefferson area. The camp was maintained on the recreation grounds of The Jefferson Mills.

Jersey Dye Corp. was recently organized for dyeing and finishing of knit goods, principally hosiery. Space has been obtained at 39 Central Ave., East Newark, N. J. Horace Wolff is head.

Joanna Western Mills Co., South Jefferson St., Chicago, has under construction a two-story and basement building at 21st and Jefferson Sts., to be equipped for increased output of window cloth, as well as coated cloth specialties.

Knitbrook Mills, Inc., recently organized, will manufacture outerwear. Adolph J. Greenberg, 1410 Broadway, New York, is attorney and representative.

Lister Worsted Co., Inc., Stillwater, R. I., has been liquidated.

Mastertex Finishing Corp. was recently established to operate a textile dyeing and finishing mill. Maurice A. Schnur, 113 West 42nd St., New York, is attorney and representative.

Charles Gadd, 608 Fifth Ave., New York, is attorney and representative for **Mode Knitting Mills, Inc.,** manufacturers of outerwear.

Monarch Rug Mills, Dalton, Ga., were purchased by **E. T. Barwick Mills, Inc.** It is expected that the plant will be operated as a separate organization.

Cary C. Boshamer, Jefferson, S. C.,

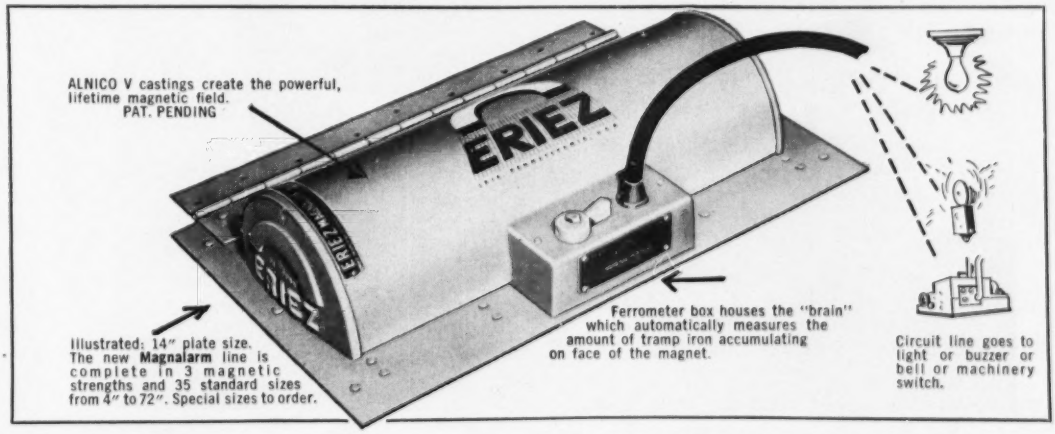
The only magnetic separator that tells you when your magnet needs cleaning:

it's the new MAGNALARM

Magnalarm, the revolutionary Eriez invention with a ferrometer "brain", signals you *automatically* when the magnetic separator has collected a preset amount of tramp iron! Maximum efficiency is the result!

Tramp iron that used to "get by" due to overloaded and uncleaned separators is ended with a *Magnalarm*. Such "extra" tramp iron could cause "extra" machinery damage, fires, product contamination.

Now *Magnalarm* signals you when the magnet plate needs cleaning. A light goes on . . . or a bell sounds . . . or the machinery line is shut down automatically. You are *always* guarded against costly tramp iron dangers with *Magnalarm*.


ALNICO V castings create the powerful, lifetime magnetic field. PAT. PENDING
ERIEZ
Illustrated: 14" plate size. The new Magnalarm line is complete in 3 magnetic strengths and 35 standard sizes from 4" to 72". Special sizes to order.
Ferrometer box houses the "brain" which automatically measures the amount of tramp iron accumulating on face of the magnet.
Circuit line goes to light or buzzer or bell or machinery switch.

HOW DOES IT WORK?

Magnalarm's "brain" is a ferrometer which measures the actual magnetic loading. When the amount of tramp iron across the entire face of the magnet reaches the predetermined Danger Point (which is where magnetic effectiveness is temporarily reduced to minimum operating efficiency), the "brain" *acts!* A circuit is opened or closed depending on the action you require. Open circuits are used to ring a bell or buzzer or turn on a light. Closed circuits are used to shut down your line of machinery. The signaling action continues until the *Magnalarm* has been cleaned of its dangerous tramp iron load. The only electric current required is that used to open or close the circuit. *Magnalarm* is in itself the same powerful, non-electric, permanent magnetic separator which won Eriez the position of being the world's largest manufacturer of permanent magnets!

MAGNALARM "SAVINGS"

1. Trouble-saver by giving you the maximum protection against fires, machinery damage and product contamination.

2. Time-saver in eliminating the need of checking separators in remote and hard-to-get-to places.

3. Money-saver in eliminating the need of shutting down machinery while separators are checked.

4. Reputation-saver by guarding quality . . . telling you when and how much contamination you are getting in your line.

CARBORUNDUM COMPANY FINDS MAGNALARM THE ANSWER TO DIFFICULT PROBLEM

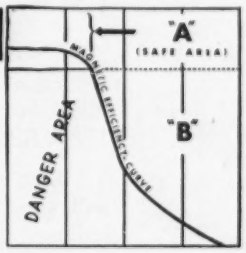
Carborundum Company of Niagara Falls, N. Y. had a serious problem with tramp iron which was causing heavy machinery damage to a rice coal pulverizer. Because an installation of magnetic separators would necessarily have to be in a place difficult and awkward to inspect, the maintenance of an ordinary magnetic separator created its own special problem. Accumulations of tramp iron on the magnet could readily become excessive even with periodic inspections and the cost of damage caused by tramp iron which "might get by" would result in labor and replacement parts expense.

However, Carborundum Company found the new Eriez *Magnalarm* the perfect answer to its trouble. Inspection and cleaning of the magnetic separator is only necessary now when *Magnalarm* signals that a predetermined amount of tramp iron has been caught. So important to the company's equipment is the *Magnalarm* that Carborundum employs the signaling device which automatically shuts down the line the instant the alarm is tripped.

COST, INSTALLATION AND MAINTENANCE

The cost of *Magnalarm* is only pennies more than regular magnetic separators. Installation is simple. Easy-to-follow instructions come with each unit. *Magnalarms* are preset at the Eriez factory but you can increase or decrease your *Magnalarm's* sensitivity by a simple adjustment.

MAGNETIC EFFICIENCY AS GOVERNED BY TRAMP IRON ACCUMULATION



"Magnalarm's" signaling action makes sure you operate only in the strong, safe range marked "A." Strength of ordinary magnets will be lowered by tramp iron accumulation to the inefficient operating danger area marked "B" unless checked and cleaned frequently.

WRITE FOR EXCITING, FULL DETAILS

on Magnalarm, the only magnetic separator of its kind!

Fill out the easy coupon below. Do it yourself . . . or do it for someone within your organization who will be grateful for the complete "Magnalarm" story. Sizes. Magnetic strengths. Types of installation. Construction. Electrical circuits. Types of ferrometer element. Special features. Even how to order. It's all there.

ERIEZ

Eriez Manufacturing Company
72H Magnet Drive, Erie, Pa.

Send me the "MAGNALARM" literature

Name_____

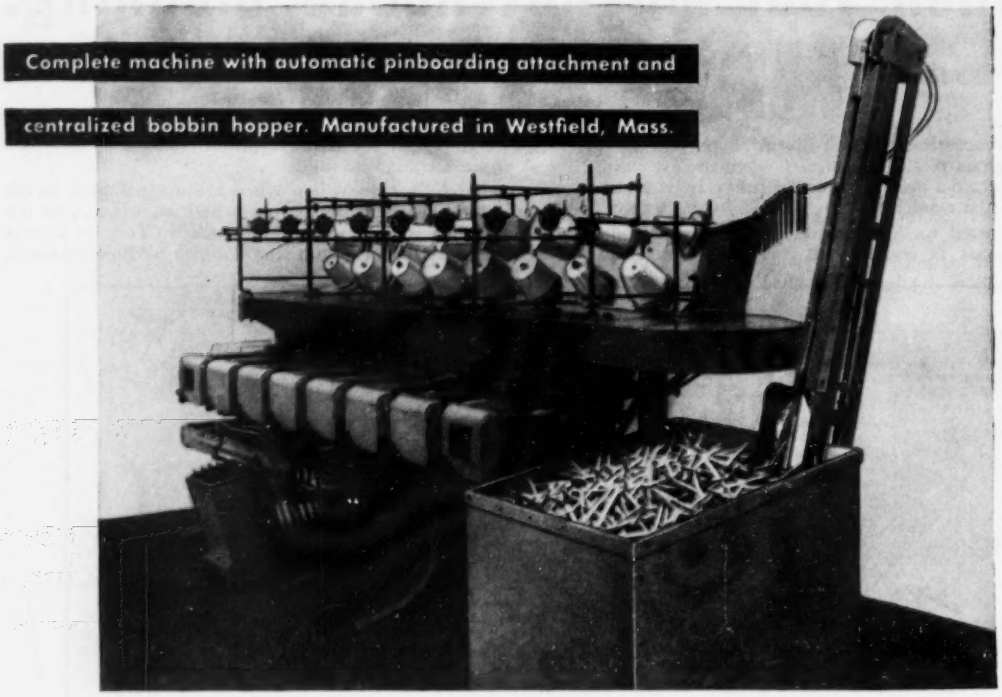
Address_____

City_____ **State**_____

Company_____ **Title**_____

FOSTER-MUSCHAMP

MODEL 66 AUTOMATIC FILLING WINDER



Complete machine with automatic pinboarding attachment and centralized bobbin hopper. Manufactured in Westfield, Mass.

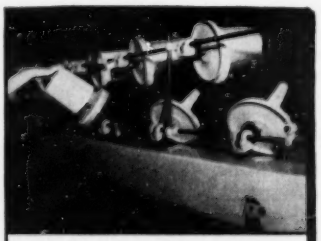
IT WILL WIND 5000 LBS. NET PER 8 HR. SHIFT FOR 19 MILLS PER LB. OF YARN QUILLED

That's because it provides automatic bobbin donning, doffing and replenishing, automatic pinboarding, or filling box stacker and magazine creeling and winds at 15,000 R.P.M.

Even with this extraordinary rate of production, it will wind the most delicate filament yarns, as well as ordinary spun yarns, without damage to their original quality and will produce practically perfect bobbins.

Furthermore, the machine is highly flexible. Not only will it wind all counts and types of yarn, but will also wind different counts and colors on different spindles of the same machine at the same time.

Learn more about this machine which will produce three times the poundage of most competing automatic equipment. Send for Bulletin M-4.



Loading magazine creel. Note cone holder swings back for easy donning and doffing.

Empty bobbin ready to move into position. Note close delivery thread guide and feelerless build.

FOSTER MACHINE COMPANY

Westfield, Massachusetts, U.S.A.

Southern Office—Johnston Bldg., Charlotte, N. C.

• *Made to your design* • *Satin or highly polished finish*

Available also in AlSiMag 193 (electrically conductive) • *Long Wearing—LOWEST IN COST IN THE LONG RUN!*

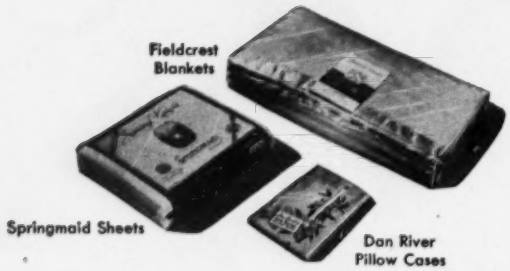
53RD YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A SUBSIDIARY OF MINNESOTA MINING AND MANUFACTURING COMPANY

CHATTANOOGA 5, TENNESSEE

SALES ENGINEERS: NORTH AND EAST: Jay S. Gosnell, 671 Broad St., Newark, New Jersey, Mitchell 2-8159. SOUTHEAST: Joe E. Spearman, American Lava Corporation, Chattanooga 5, Tenn., 5-3411 ALL OTHER AREAS: J. B. Shacklett, American Lava Corporation, Chattanooga 5, Tenn., 5-3411 CANADIAN REPRESENTATIVE: Ian M. Haldane and Company, Post Office Box 54, London, Ontario, Canada. CONTINENTAL EUROPEAN REPRESENTATIVE: P. C. Huguenin Luzern, Gerbergasse 6, Luzern, Switzerland.



YOU CAN TELL A HAYSSEN-WRAPPED PACKAGE BY THE WRAPPING IT KEEPS!

easy, automatic operation

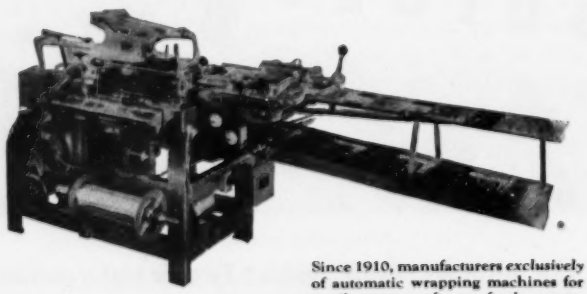
Regardless of size or shape, you get a neat, tight wrap on every package with a Hayssen automatic wrapping machine. *Wrapping's easier!* Also, production men report savings up to 80% over previous wrapping costs.

simple to adjust

No complicated adjustments from size-to-size on a Hayssen. No gears or sprockets to remove or change . . . no need for expensive mechanics to change size, either. So simple the operator does it on the job.

more sturdily built

Hayssen's simple, rugged design, using fewer moving parts, keeps these machines working and saving through years of dependable, trouble-free service. Every moving part is in the open and easily reached for maintenance and cleaning.



Since 1910, manufacturers exclusively of automatic wrapping machines for textiles, paper, frozen foods, meats, vegetables, and many other products. Whatever your product, Hayssen can solve your wrapping problem. WRITE today for more information.

Hayssen MFG. COMPANY

DEPT. TI-8, SHEBOYGAN, WISCONSIN

What the TEXTILE MILLS are doing

is president of the newly organized **Monticello Knitting Mills, Inc.**

National Spinning Co., Inc., has opened a new spinning mill at Washington, N. C. The first unit contains 55,000 sq ft. Zephyr and synthetic yarns will be spun at the plant.

Nyloknit, Inc., was recently chartered to manufacture sweaters and other outerwear. Jack L. Bleckner, 43 West 12th St., New York, is attorney and representative.

Pacific Mills, Lawrence, Mass., have organized a craft fabric division for marketing woolens, worsteds, blended and synthetic fiber fabrics.

Packard Mills have enlarged their weave room and finishing room in Webster, Mass., and the card room of the Caryville, Mass., plant.

The **Peerless Finishing Co.,** Paterson, N. J., has leased the former Normandie Finishing Co. plant in Fair Lawn, N. J. Both plants are being used for dyeing and finishing.

Phoenix Hosiery Co. has shut down the knitting operation of women's hosiery in its Milwaukee, Wis., plant. Knitting capacities of its southern subsidiaries have been enlarged to meet the production requirements of the company.

Leonard Peoritz and Harry Amdurer recently leased ground floor space at 35 Eighth St., Passaic, N. J., to be used for manufacture of full-fashioned cashmere sweaters. A company has been organized to operate the mill.

Herman J. Aisenberg, 150 Taber Ave., Providence, R. I., is attorney and representative for the newly organized **Shuttlecoft, Inc.**

Frank Russell Glove Co., Berlin, Wis., was sold to the **Ripon (Wis.) Knitting Works.**

Thompson Textiles, Inc., has under construction a one-story building on old Pineville Road, Charlotte, N. C., for warehouse and office service.

Rambo & Regar, Inc., Norristown, Pa., recently reorganized the corporation. Joseph S. Rambo remains as president and was elected chairman of the board. John Stallings was appointed executive vice-president ir charge of sales, and Edward Berger

if you want lower V-Belt costs—

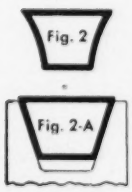
When a V-Belt bends, you can feel its sides change shape.

—just make this simple test

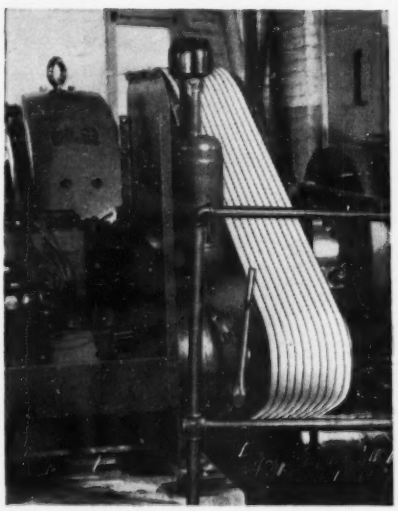
Take *any* V-belt that has *straight* sides (Fig. 1). Bend that V-belt while you grip its sides with your fingers. You will *feel* the sides *bulge out* (Fig. 1-A). Clearly, that out-bulge forces the belt to press *unevenly* against the V-pulley—and this *concentrates* wear at the points shown by arrows (Fig. 1-A).

Now bend a Gates Vulco Rope with CONCAVE SIDES (Fig. 2)

(U.S. PAT. NO. 1813698)



Instead of *bulging*, the precisely engineered CONCAVE SIDES merely *fill out* and become perfectly straight. This belt, when bent, *precisely fits* its sheave groove (Fig. 2-A). The sides of the Gates Vulco Rope press *evenly* against the V-pulley. Therefore, wear is distributed *uniformly* across the *full face* of this belt —resulting in *longer* belt life and *lower* belt *costs* for you!



Typical Gates Vulco Rope Drive —the Gates V-Belts are built with Concave Sides to insure longer belt wear.

When you buy V-belts, be sure to get the V-belt with the Concave Sides—the Gates Vulco Rope!

Gates VULCO ROPE DRIVES

REG U.S. PAT. OFF.

Gates Engineering Offices and Jobber Stocks are located in all industrial centers of the United States and Canada, and in 70 other countries throughout the world.

THE GATES RUBBER COMPANY
DENVER, U.S.A.

CS-7

OILITE® Finished Machine PARTS

make your job EASIER... give you BIG SAVINGS too!

- Originators of Finished Machine Parts of Metal Powders
- Vast Research and Engineering Facilities
- Huge Production Facilities
- Each Part an Engineered Product
- COST is less, of course
- Fast Delivery... Normally 1 to 4 weeks
- Permits NEW Designs
- Large Parts, too—Over 20"
- ON-the-SPOT Service by Experienced Field Engineers

However you enjoy your leisure moments . . . fishing, gardening or just sittin' . . . it's more fun if your mind is free of "Shop" headaches. And that's why we're suggesting that you explore your designs for additional OILITE Finished Machine Parts applications.

Each OILITE Part is an ***Engineered*** Product — Precision Made by artisans with more than 20 years Know-How. Field Engineers, too, give you ***ON-the-SPOT*** Service.

Only Amplex makes OILITE

CHRYSLER CORPORATION
AMPLEX DIVISION
Dept. M Detroit 31, Michigan

Field Engineers and Bearing Depots Throughout United States and Canada

OILITE Products include: Bearings, Finished Machine Parts, Cored and Solid Bars, Permanent Filters and Special Units of Non-Ferrous and Ferrous Metals and Alloys.

What the TEXTILE MILLS are doing

general manager. John C. Dievers, formerly professor of knitting at Philadelphia Textile Institute, now is in charge of designing, production, and quality control. The firm is now producing children's hosiery made from nylon Helanca and Dacron Fluflon.

The item crediting the Russell Manufacturing Company of Alexander City, Alabama, with putting up a branch mill at Lucedale, Miss., which appeared in the July issue of TEXTILE INDUSTRIES was in error.

Textron Incorporated recently presented to the Museum of Art, Rhode Island School of Design, a collection of 156 textile sample books having an

Textron's Burton presents books to Dr. Maxon of R. I. School of Design.

estimated value of more than $15,000. They were compiled over a period of nearly 100 years by Lonsdale Co., which a few years ago became part of Textron.

Toscony Fabrics has liquidated its rayon weaving mill in Pawtucket, R. I., and henceforth will concentrate on manufacture of plastic film.

Riegel Textile Corp., Ware Shoals and Trion divisions, have installed six new nappers for flannel and suede finished cloths. The Trion division has under construction a one-story mill near Brundidge, Ala.

Rodney Mills, a new weaving operation, has started in the Kilburn Mill building in New Bedford, Mass. Herman J. Bernier, formerly with

(Continued on page 189)

for high speed wetting and rewetting

nekal *ws-21*

The new **Nekal WS-21** is designed to give maximum efficiency for both wetting and rewetting at all temperatures. What's more, this liquid form chemical has a pleasant odor and controlled foaming qualities.

Nekal WS-21, the Wetting Agent, will produce excellent results in such operations as:

- ★ High speed continuous dyeing.
- ★ Package and beam machine processing.
- ★ Resin finishing, sizing, desizing and bleaching.
- ★ Wetting in jigs, padders, reel machines and open tubs.

Nekal WS-21, the Rewetting Agent, makes textiles highly absorbent. It is used:

- ★ To give rewetting in sanforizing.
- ★ For rewetting prior to dyeing and printing.
- ★ For finishing purposes on cellulosic and animal fibers.

If a highly concentrated product is preferred, use **Nekal WS-25,** a liquid brand three times the strength of **Nekal WS-21.**

Write today for a circular on **Nekal WS-21** and **Nekal WS-25.**

ANTARA® CHEMICALS

A SALES DIVISION OF GENERAL ANILINE & FILM CORPORATION

435 HUDSON STREET • NEW YORK 14, N. Y.

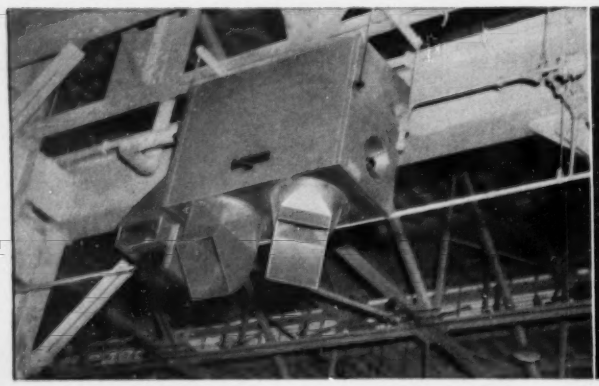
SALES OFFICES: NEW YORK • BOSTON • PROVIDENCE • PHILADELPHIA • CHARLOTTE, N. C. • CHATTANOOGA • CHICAGO • PORTLAND ORE. • SAN FRANCISCO • IN CANADA: CHEMICAL DEVELOPMENTS OF CANADA, LIMITED, MONTREAL

ANTARA gaf

"From Research to Reality"

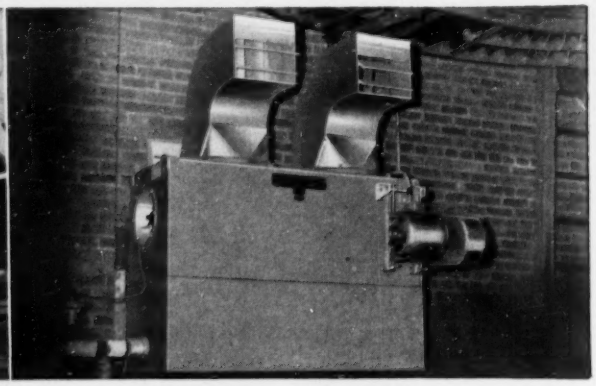
HEAT–VENTILATE YOUR PLANT

WITH THESE SPACE-SAVER "BUFFALO" UNITS!



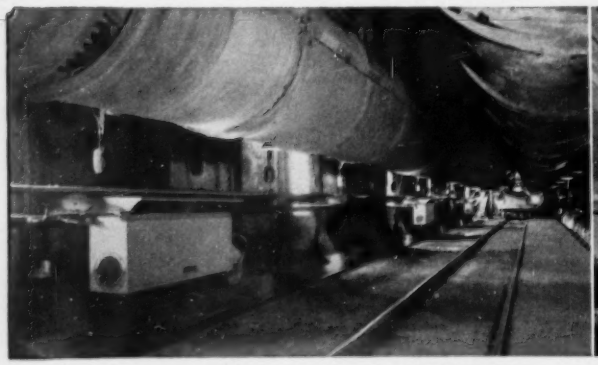
NO FLOOR SPACE REQUIRED

with a "Buffalo" Suspended Lowboy Unit Heater. Easily mounted in roof trusses. Spreads abundant, low-cost heat where you need it. Provides ventilation in warm weather.



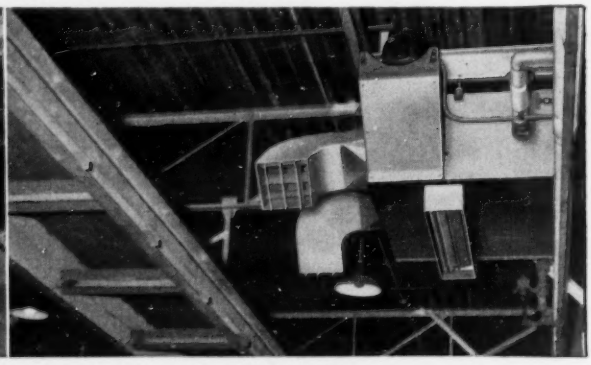
FRESH, CLEAN WARM AIR

(or cool outside air) is delivered by a compact "Buffalo" Highboy Unit with fresh air filtered intake through side wall. Bearing bowl at left permits easy external lubrication.



LOW OVERHEAD — HIGH EFFICIENCY!

Wall-mounted Lowboys provide plenty of heat even where quarters are cramped. New coil design increases heating surface, with narrower coil section. Coils are non-freeze.



SWIVEL OUTLETS "AIM" FLOW

accurately — a "Buffalo" efficiency feature. Others are "Buffalo" mixed-flow fans with unusually stable performance — standardized parts — lifetime construction.

Let us show you NOW
how low-cost and easy it is

to heat and ventilate your plant. Bulletin 3704-A gives all details on the units to handle your heating — ventilating — makeup air problem. Handy chart gives you air diffusion distances for each unit and capacity up to 35,000 cfm.

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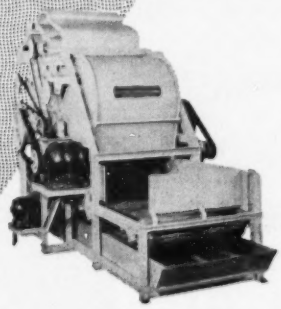
PRESSURE BLOWING COOLING HEATING FORCED DRAFT VENTILATING AIR CLEANING AIR TEMPERING INDUCED DRAFT EXHAUSTING

COTTON IS MONEY DON'T WASTE IT

Every bit of spinnable fibre you see in your waste represents a loss of money!

CEN-TENNIAL'S SRRL OPENER is designed to eliminate this waste . . . and does an excellent job of it.

For instance: one mill (we'll give you the name on request) reports a 14.3% decrease of spinnable fibre in waste which amounted to a yearly saving of $22,400 on cotton stock. The point is, CEN-TENNIAL can save your cotton and save you money . . . CAN YOU AFFORD *NOT* TO EQUIP YOUR OPENER ROOM WITH THE CEN-TENNIAL OPENER?



CEN-TENNIAL
COTTON GIN COMPANY

Columbus, Georgia

This Van Vlaanderen

COMBINATION EXAMINING and TUBING MACHINE

is built to the superior standards identifying all Van Vlaanderen machines It is rugged It is designed for the operator's convenience. It gives better production. It eliminates tubing labor costs.

Your operator can do straight examining—tube to tube, shell to shell, beam to beam or can tube while he inspects all or only part of the fabric. Speed changes from the slowest examining rate to full tubing speed are effortlessly and instantaneously made through a finger-tip control, governing a variable speed drive.

For rejected yardage (seconds) a supplementary center bar is provided.

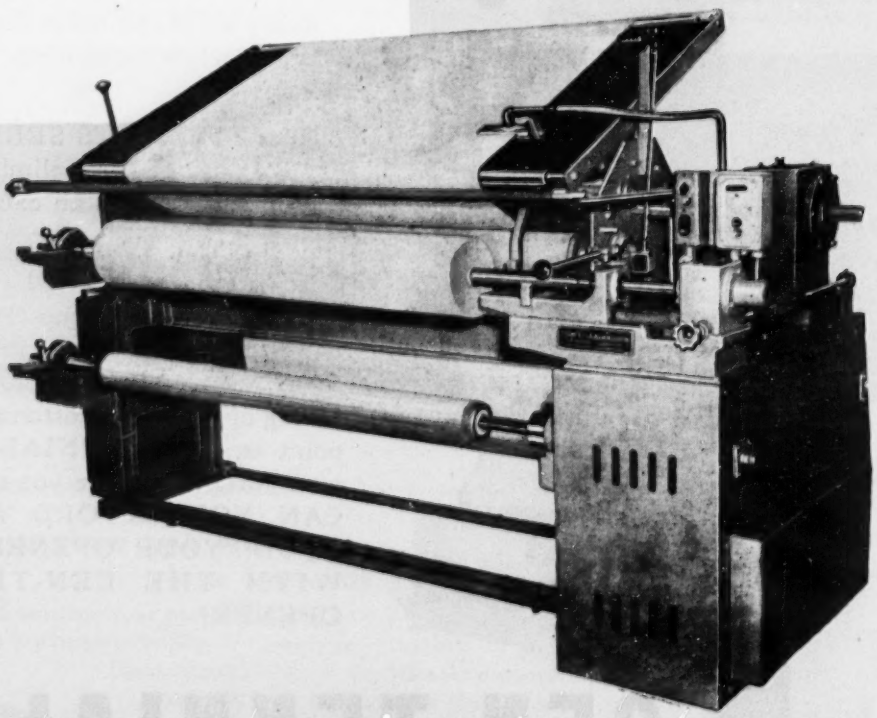
YOU FIGURE THE SAVING

Can you eliminate the labor costs of tubing fabrics by using this modern combination machine?

The Van Vlaanderen Combination Examining and Tubing Machine was designed to permit you to do just that

This machine automatically tubes while your operator examines—and tubes **better** because selvage corrections are made quicker and smoother by the automatic selvage guide consisting of an air pressure follow-up control and hydraulic cylinder actuating the movable tubing bar carriage. Operates on all fabrics from light sheers to heavy ducks, plastics and paper.

Ask our representative to work with you to decide the savings you can make



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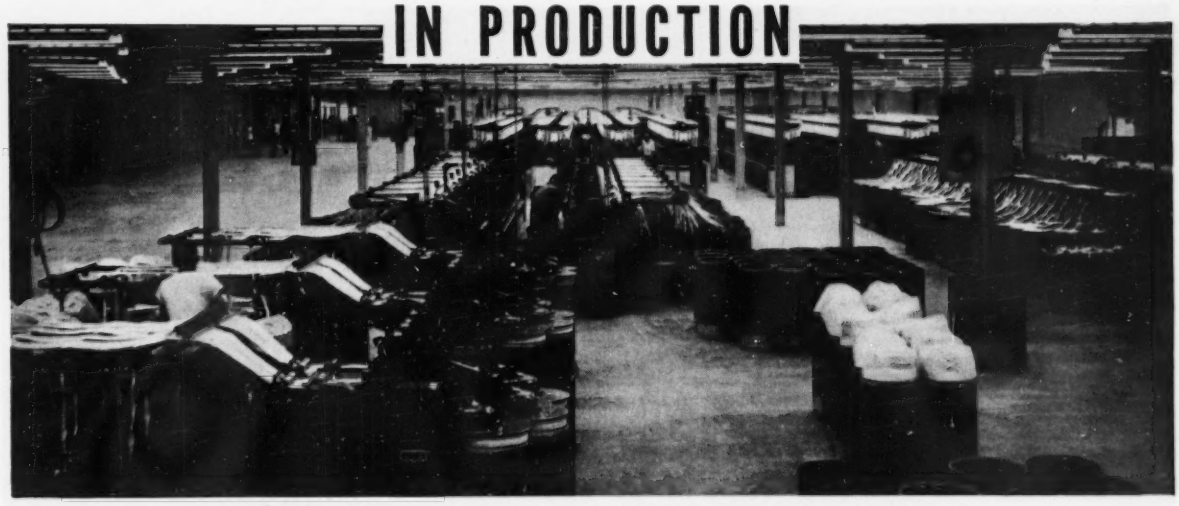
NEW WOOLEN TEXTILE ACTIVITY IN THE SOUTH!

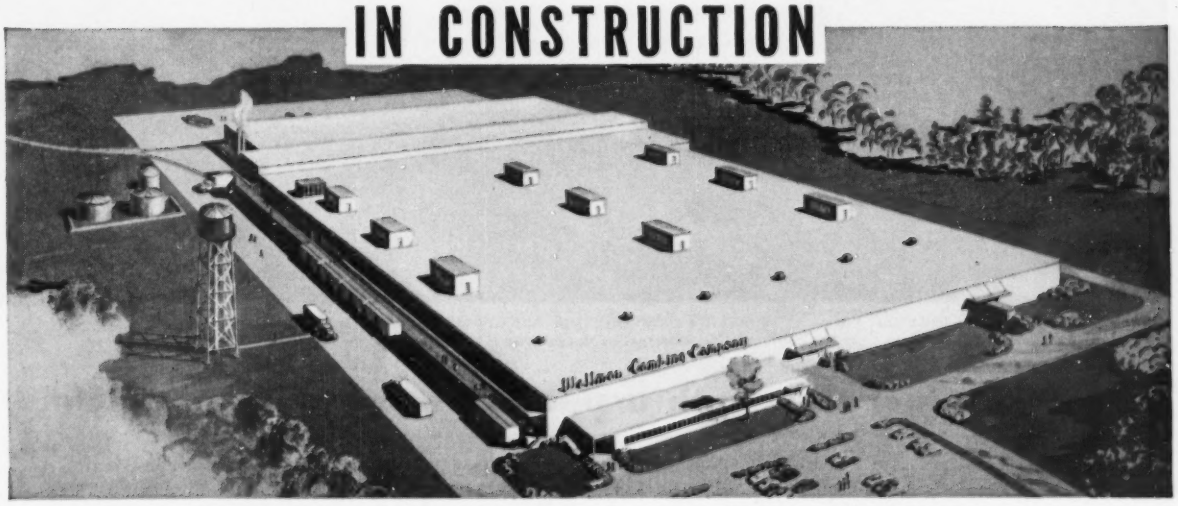
PROJECTS BY LOCKWOOD GREENE

IN PRODUCTION



NATIONAL SPINNING CO., Washington, N. C.—A spinning mill on worsted yarns and blends, laid out for future expansion to include scouring, combing and dyeing.

IN CONSTRUCTION



WELLMAN COMBING CO., Johnsonville, S. C. — Now in construction for very early completion, this 150,000 sq. ft. wool combing plant is arranged for expansion to handle 84,000,000 lbs. of wool per year.

IN DESIGN

New wool combing plant in South Carolina for BRANCH RIVER WOOL COMBING CO. of Woonsocket, R. I.

The Wellman plant is a unit of Nichols & Co., Boston, Mass. The Branch River plant is a unit of Amedee Prouvost of Roubaix, France. These are two of the largest wool processing firms in the world.

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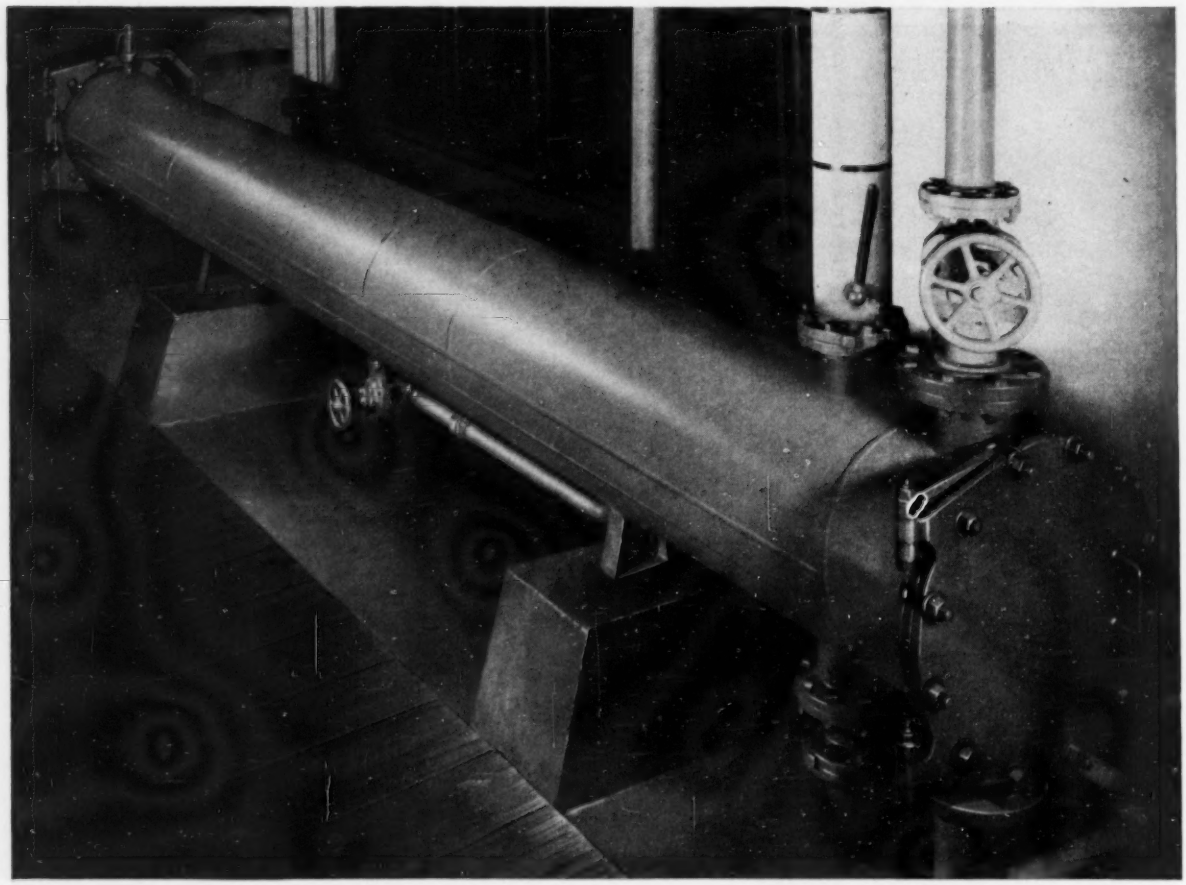
SPARTANBURG, S. C.
MONTGOMERY BUILDING

Banner Yarn Dyeing Corp.



25,000 gal/hr of city water passes through this p-k reclaimer, is heated from 46° to 105°, free of cost.

saves 25% fuel costs with a p·k waste water heat reclaimer

Passing hot spent dye liquors through a **p·k** waste water heat reclaimer saves 25% of fuel costs, reports Banner Yarn Dyeing Corp., Brooklyn.

At Banner Yarn, for example, city water comes into the plant at 46° or lower. Once through the heat reclaimer, the incoming cold water temperature is raised, without cost, to approximately 105°. The **p·k** reclaimer shown has been in continuous operation for over seven years and requires a one hour cleaning job only 3 or 4 times a year. During average operation, Banner's oil heating facilities use 4000 gallons every 24 hours, 25% less than before installing the **p·k** waste water heat reclaimer.

Such savings are *usual* for owners of **p·k** heat reclaimers. Passing waste hot water through **p·k** reclaimers costs nothing after units are installed, pays off every day thereafter.

p·k heat reclaimers are available in many standard sizes and types, each specifically designed to do the best job for you. Write for fact-packed brochure that gives all details, **p·k** No. 310.

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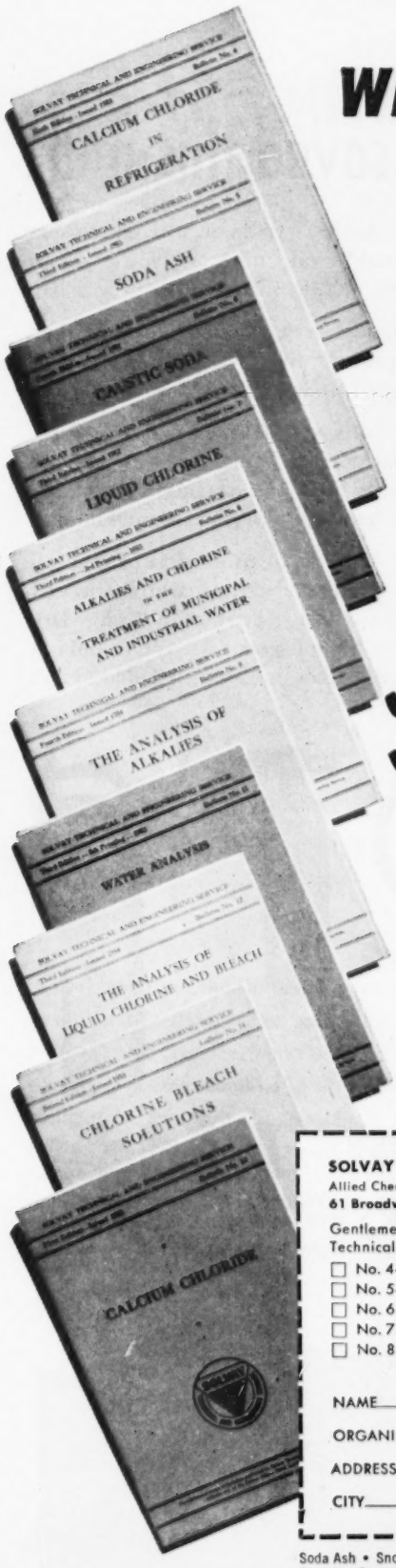

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Put a Kidde Portable Dry Chemical Extinguisher near every fire hazard in your mill, and you're all set to fight fire the instant it starts.

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For on-the-spot protection of textiles, flammable liquids and live electrical equipment, you won't find anything better than Kidde Dry Chemical Portables. So don't wait 'til you're poking around in the ashes . . . Contact Kidde today!

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Ideal Goldflyers*

Keep Noses and Hollow Legs Clean and Open

We guarantee that Ideal Goldflyer finish will prevent tagging in flyer noses, eyes, and slots, and will stop choking up of hollow legs. Fibres cannot tag on this baked-on, smooth-as-glass finish which fills all pores and rough spots on both inside and outside surfaces . . . and which will never flake off or wear to a rough surface.

Ideal Goldflyer finish can be applied to new flyers or as a part of Ideal's matchless Flyer Repair Service. Send us a half-dozen of your flyers for a test in your mill (at no obligation to you), or specify it on your next repair or reconditioning order.

Write, call, or wire for full information.

Here's the Full Ideal Repair Service!

1. Straightening noses
2. Gauging slots
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4. Rebuilding worn parts of flyers to factory specifications
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Rusco Woven Check Straps are a modern, high-efficiency product developed especially for today's textile industry. Unlike leather, this exclusive woven material will neither stretch nor shrink. Initial settings remain constant throughout the life of the strap.

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"A Textile Product for the Textile Industry"

CHECK BETTER
LAST LONGER
WILL NOT STRETCH
WILL NOT LOOP
NOT AFFECTED BY HUMIDITY
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LESS COST THAN LEATHER

RUSCO WOVEN CHECK STRAPS ARE AVAILABLE BOTH FLAT AND CURVED

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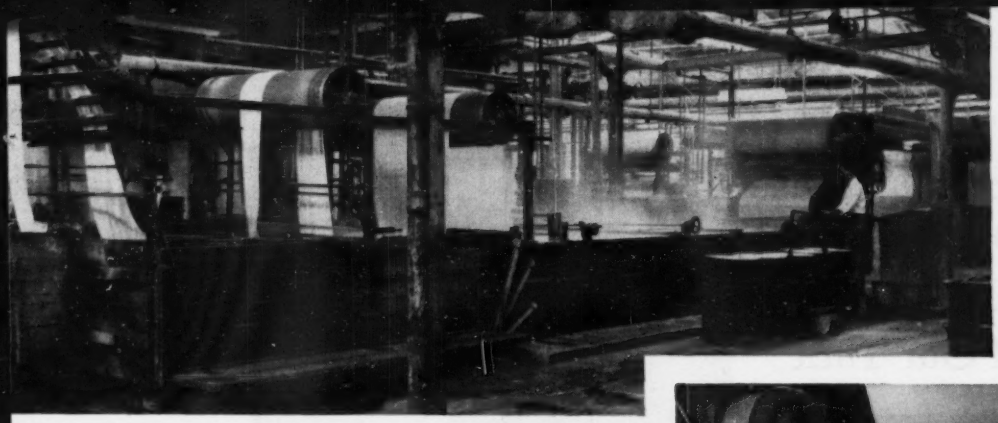
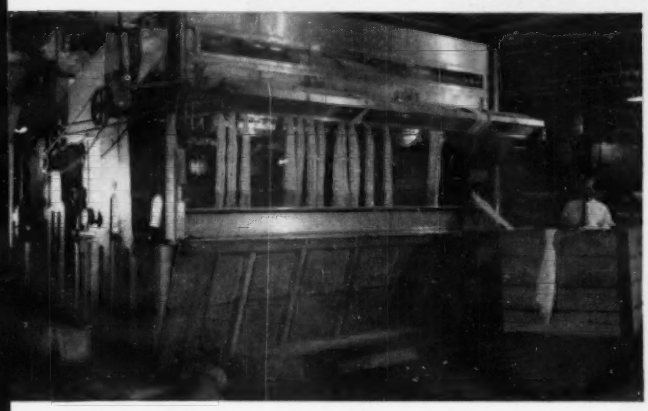
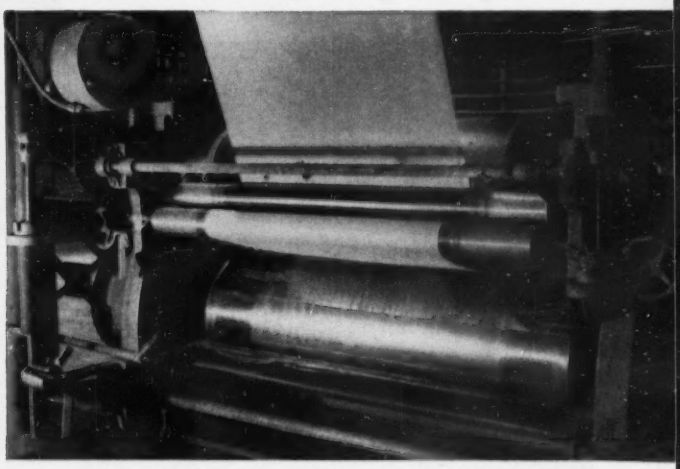


GREIGE-GOODS leaving the boil-off unit where impurities are removed. The unit utilizes much Stainless Steel.



FABRIC TO BE DYED is being roped into the channels of a Stainless Steel enclosed dye-beck.



STAINLESS STEEL rollers in a dye padder at The United Piece Dye Works.

In dyeing operations at The United Piece Dye Works ...the only metal to touch the fabric is Stainless Steel

• Transforming greige-goods into beautiful fabrics in an infinite range of colors, patterns and textures, The United Piece Dye Works, Lodi, N.J., has constantly sought the finest processing methods. One of the results is their use of Stainless Steel wherever metal touches the fabric in dyeing operations.

Boil-off units, where continuous lengths of raw goods are drawn through hot soapy water, employ approximately 400 Stainless Steel rods, as well as Stainless Steel drums.

Dyeing is done on four types of Stainless Steel units at The United Piece Dye Works: duplex dyer, enclosed dye-becks, dye jigs and dye padder. On each type, Stainless Steel has proved it can protect the product best through delicate dyeing operations.

The dye-becks, for example, had previously been made of wood and of a metal other than Stainless Steel. Wood leaked, became dye saturated, and was hard to clean. The other metal was subject to corrosion and had to be cleaned with a severe acid solution. But Stainless has demonstrated its superior corrosion resistance, and a rinsing with water cleans the dye-becks satisfactorily between dye changes.

The freedom from contamination that Stainless Steel makes possible helps The United Piece Dye Works achieve clear, unvarying colors, evenness of shade and thorough dye penetration.

Stainless Steel can give you the same results. Not only in dyeing, but in all phases of mill operation. And, for the best performance, insist that your equipment fabricator uses perfected, service-tested USS Stainless Steel.

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$150

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- ★ Operates from any 115-volt, 60-cycle a-c line

James Lees and Sons Company

of Bridgeport, Pennsylvania is another of the many enthusiastic users of the G-R Strobotac. Here is what their Superintendent of Woolen Mills says:

"The production of high quality, extra-hard twist yarn depends on positive, accurate control of spindle speeds on the twisting machine. Any spindle speed variation, such as slow starting, slipping, or failure to stop immediately . . . any of these defects in spindle operation can give us inferior quality yarn.

The Strobotac has made it possible to put a spindle through all of its 'paces,' testing it for all of the above conditions. Unlike the original shutter type, spring-driven stroboscopes, the G-R Type 631-BL Strobotac is not heavy, it is easily handled and operated, and has a wide field of vision.

We can honestly say that regular, scheduled use of the Strobotac has definitely improved the quality of our yarn."

For complete details on the many different types of G-R Stroboscopes, write for the STROBOSCOPE BULLETIN

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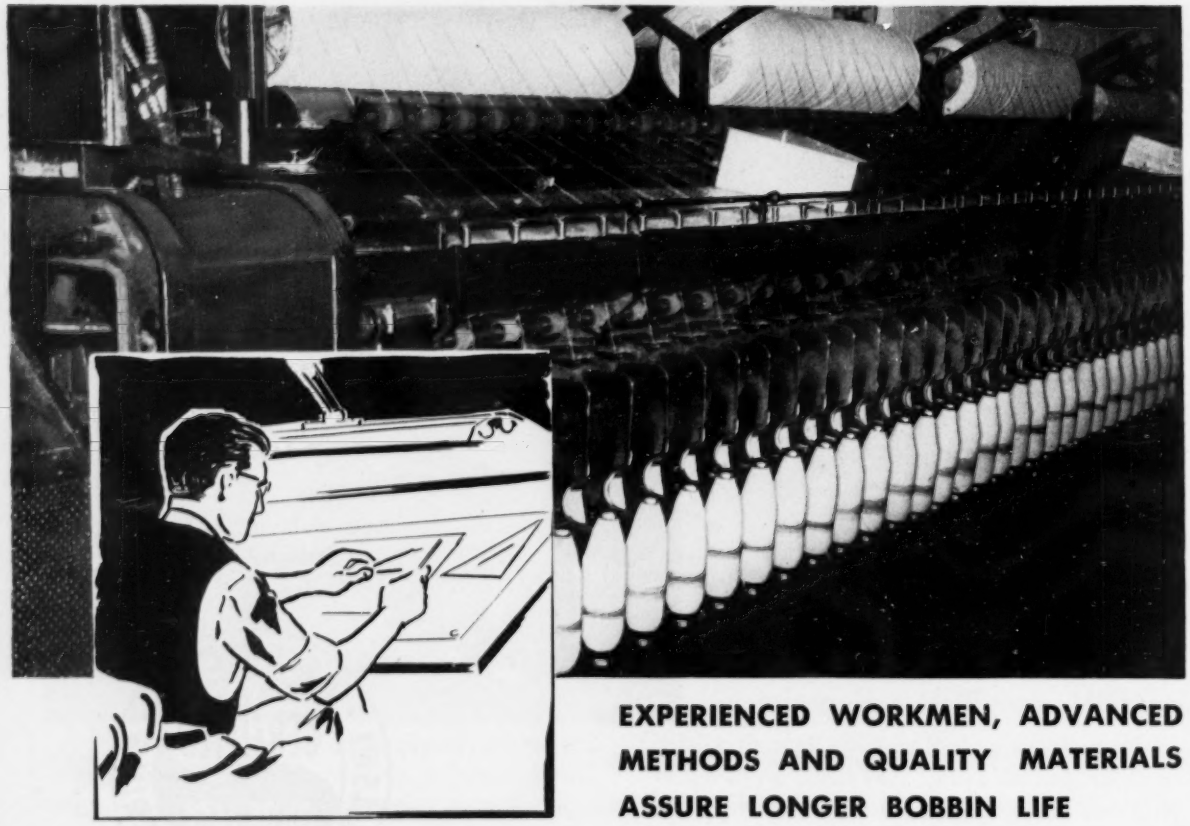

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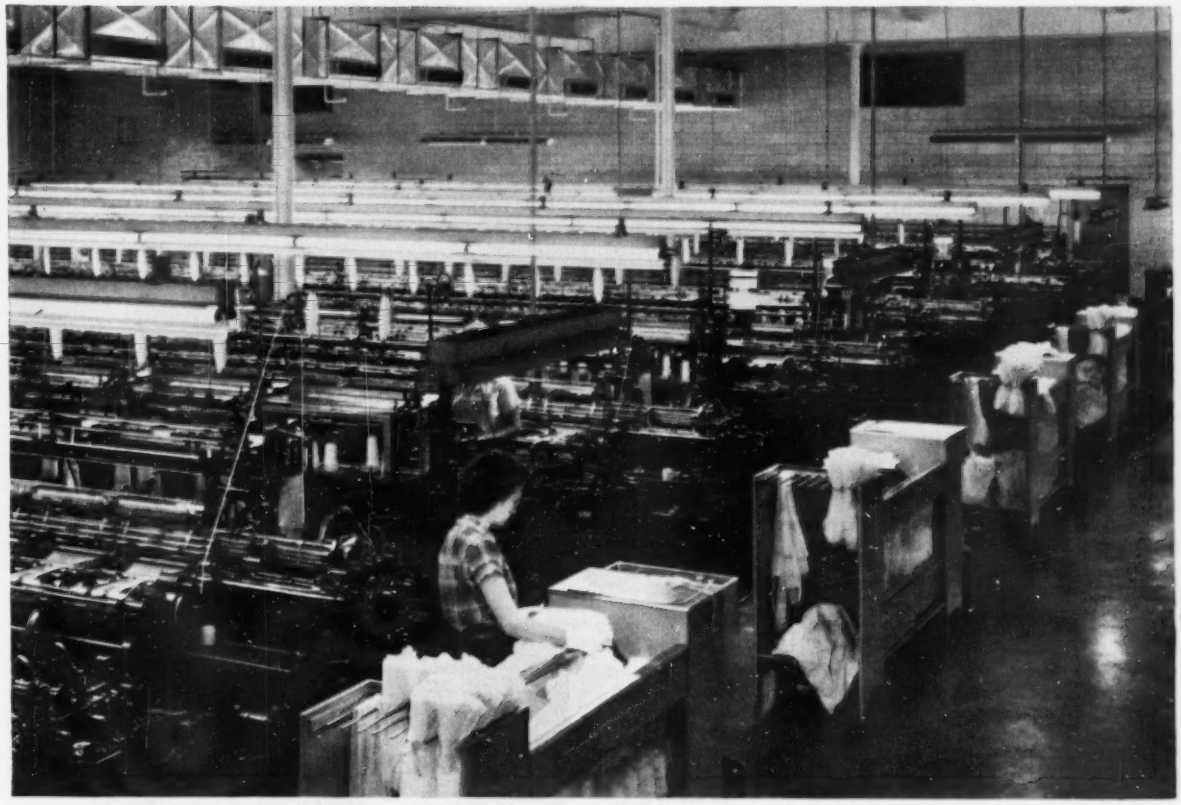
Berkshire makes the hosiery— Carrier makes the weather

What's the best way to get a uniform loop and better length control when you're knitting hosiery? Walk through this new Carrier air conditioned Berkshire Knitting Mills plant in Andrews, North Carolina, and you'll see. ▪ Modern Carrier air conditioning *with refrigeration* provides a uniform climate all year round; closely controls temperature and humidity throughout the mill—in the knitting room, in the seaming room and in the adjoining office-cafeteria building. A 230-ton Carrier Centrifugal Refrigerating Machine provides chilled water for the entire system. ▪ One distinctive feature of the Berkshire installation is a special Carrier-designed exhaust system which removes the intense heat generated by



the knitting machines' AC to DC converters. This prevents the hot air from reaching these delicate machines, and seriously affecting their operation. The exhaust system also saves fuel. It feeds some of the hot air back to the main air conditioning system to be used for reheat. ▪ You'll find in *your* mill that Carrier air conditioning *with refrigeration* saves you money by greatly increasing efficiency of men and machines—by reducing irregulars and menders by 10% to 50%. ▪ For a copy of the informative booklet, "Air Conditioning for the Textile Industry," call your nearest Carrier office. Or write to Carrier Corporation, Syracuse, New York.

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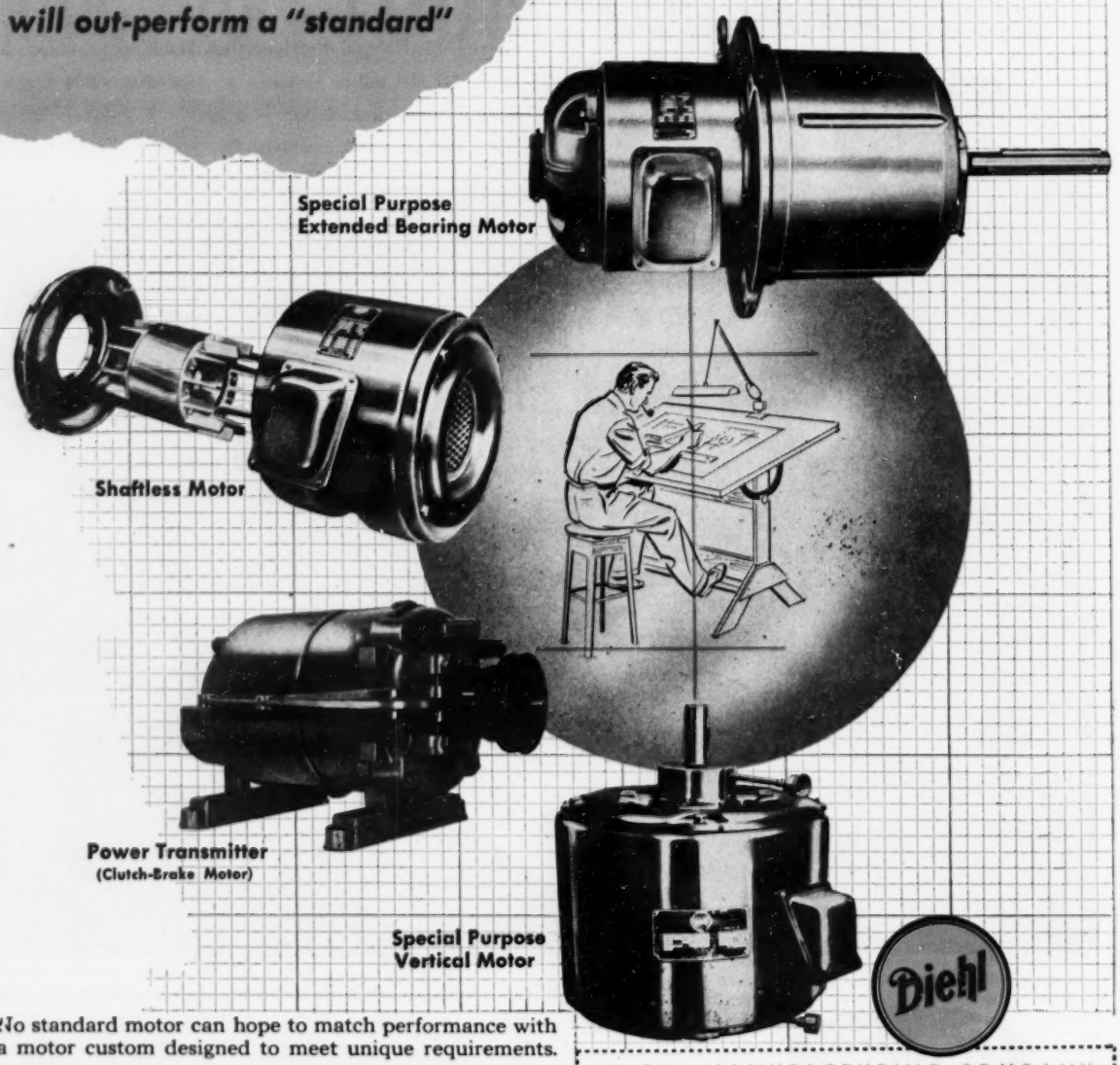
a motor designed for its job

will out-perform a "standard"



No standard motor can hope to match performance with a motor custom designed to meet unique requirements.

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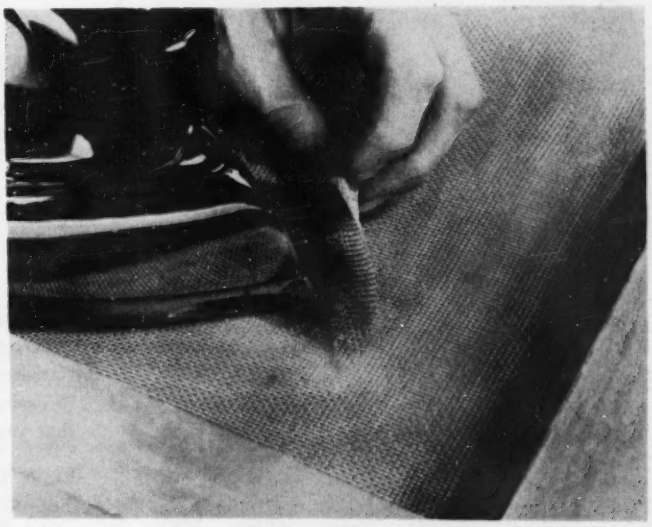
INTEGRAL AND FRACTIONAL HORSEPOWER MOTORS ARE AVAILABLE IN A WIDE RANGE OF TYPES AND SIZES

News IN BRIEF

How to Forestall Shift From Cotton. The conclusions of the Wheeler report, that fiber consumption will be up 70 per cent by 1975 but that cotton's share of the market will drop from 70 per cent to about 50 per cent, are challenged by Robert C. Jackson, executive vice-president of ACMI. The only way for this to happen is for the mills themselves to shift away from cotton. Both mills and consumers must be kept sold on cotton; the consumers through creative styling, new finishing techniques, and through intensive advertising and promotion; and the mills through an instilling by the rest of the raw cotton industry of a belief that the industry is dedicated to a determined effort to keep cotton competitive.

Man-Made Fibers Council? J. Spencer Love, board chairman of Burlington Mills, and the textile industry's most outspoken proponent of a "man-made fibers council," repeated his plea for the formation of such an organization in an address to the International Congress on Man-Made Fibers recently. The purpose of the council would be to educate the consumer, and to promote and sell. Organization of such a council in America would lead to establishment of similar bodies in other countries, but no attempt should be made to get into matters of prices, tariffs, or production controls.



Glass Screens Easily Repaired

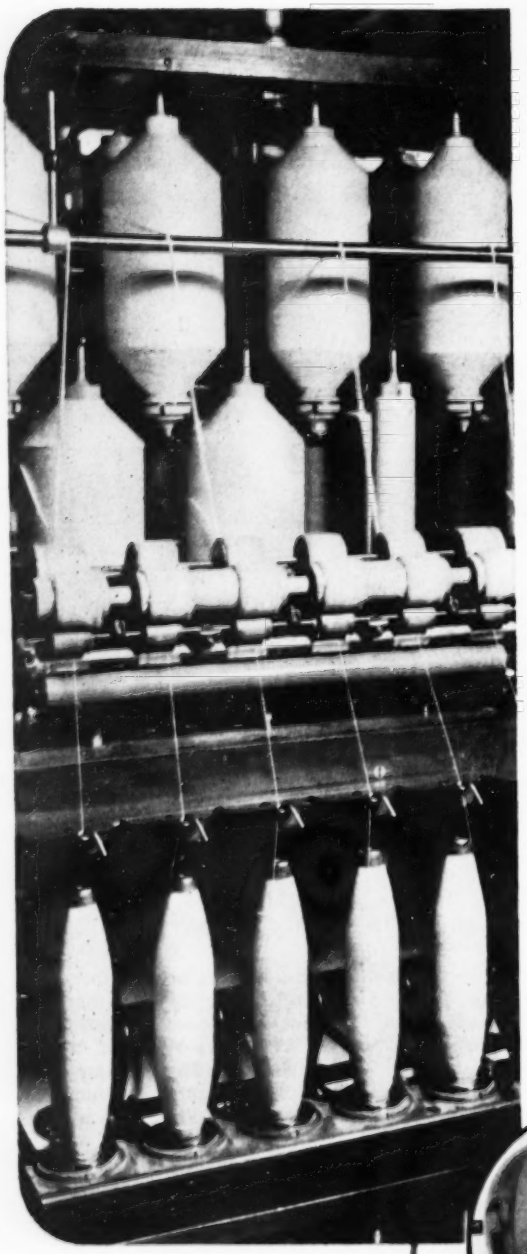
A new type of screening that is weather-resistant, strong, non-rusting, and easy to install is available. Woven of Fiberglas yarns coated with a pigmented Bakelite vinyl resin coating and heat-set in a firm, uniform mesh, it is easy to cut with scissors, without raveling or injuring the hands, and can be easily stapled or tacked to a wooden frame.

The screen has a high burst strength, as well as exceptional dimensional stability, showing no shrinkage or stretching under temperature extremes or excessive moisture.

The Bakelite vinyl resin-base coating on this woven Fiberglas contains color pigment that eliminates all need for painting the screen and danger of staining window sills or frames. It also resists sunlight, fungus, and corrosion from salt water or chemicals in the air.

An accidental tear or puncture in the screen is easily repaired by sealing a small patch of the coated screen over the damaged spot with an electric iron (see photo). Available in aluminum, bronze, and green colors, it is woven in 24-inch, 26-inch, 28-inch, 30-inch, 32-inch, 36-inch, 42-inch, 48-inch and 60-inch widths.

Godfrey vs. the Hosiery Manufacturers. When Arthur Godfrey recently called on his TV and radio audience to boycott the hosiery industry because "the people making these stockings are just making them poorly," the National Association of Hosiery Manufacturers jumped on him so hard that Godfrey quickly recanted, public apologies were made, and a golden harvest of publicity was reaped by all concerned. While regretting the incident that brought it about, the NAHM is satisfied that Godfrey, whether unwittingly or not, came



Only WHITIN SUPERFLEX Spinning Frames provide...

- Wide Range of Traverse
- Super-Draft System
- Top Quality Product
- Low Operating Cost

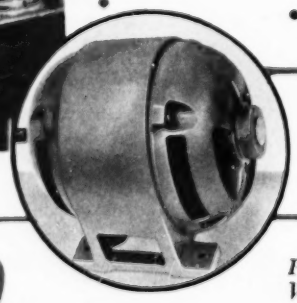
TRAVERSE To provide mills with complete flexibility for present or future conditions, the Whitin Superflex Spinning frame has a traverse range of 8" - 11". The frame can be easily set at intermediate positions in the mill. This feature allows mills to take maximum advantage of its spinning frames to produce the most economical sized package.

SUPER-DRAFT° The two apron drafting system, developed, perfected and used by Whitin for twenty-two years, is recognized as outstanding for fiber control and drafting performance. Highly flexible in range of drafts, it is easy to clean and to operate. Reports from mill after mill show that yarn quality is excellent — higher than ever before.

LOW OPERATING COST Whitin-Climax Ball Bearing Top Rolls and Whitin-Cleandraft non-lubricated middle and back top rolls banish oil from drafting zone, reduce picking and cleaning by 96 per cent, lower direct spinning expense and assure minimum operating cost.

OTHER FEATURES

- Easily accessible creel
- Spring counterbalanced ring rail
- Unsurpassed quality case-hardened bottom rolls
- Precision manufacture



LOW POWER CONSUMPTION

The standard textile motors used keep installation, power consumption and maintenance costs at a minimum.

°TRADE-MARK REG.

For detailed information write to Dept. F Whitin Machine Works, Whitinsville, Mass.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

Wonder Fiber
WOOL
A MARVEL OF NATURE PERFECTED BY MAN
WOOL IS ABSORBENT, PROTECTS HEALTH
WOOL INSULATES • RESISTS WRINKLES
WOOL WEARS • WOOL FEELS GOOD
WOOL IS FLAME RESISTANT
100% WOOL

Wool Industry Adopts "Trade Mark"

A circular, seal-like insigne has been adopted as the unofficial trademark of the wool industry. The insigne is the center of a campaign to promote the sale of wool products by making them more readily recognizable. It bears the legend, "Wonder Fiber Wool, a Marvel of Nature Perfected by Man," and will be used on wool products of all types and on letterheads and printed matter.

News in Brief

up with the best promotion gimmick the hosiery industry has seen in many a day. Philosophizing on the whole affair, the NAHM cautions its members that, " . . . next time, when some other industry gets similar treatment, we shouldn't look on it as a matter of good clean fun."

Unions Smoke Peace Pipe. CIO and AFL have signed a no-raiding agreement, to run through 1955. Textile unions on both sides are involved. Pact may foreshadow eventual merger of the two labor organizations.

Japanese Raw Wool Imports Up. It is reported that Japanese imports of raw wool have increased every year since 1949, despite foreign exchange difficulties. Considerable quantities of tops, noils, waste, rags, and shoddy are also obtained from abroad. Imports of raw wool in 1953 were about 38 per cent higher than in 1952; the bulk of the increase came from Argentina. Imports of tops rose from 300,000 pounds in 1950 to 19.9 million pounds in 1953, while domestic production of tops rose from 30.0 million pounds to 82.3 million pounds in the same period.

Report on Texas Cotton. "Report on the Fiber Properties and Spinning Performance of Cotton from the High Plains of West Texas, 1953 Crop" is available from Cotton Research, Texas Technological College, Lubbock, Texas.

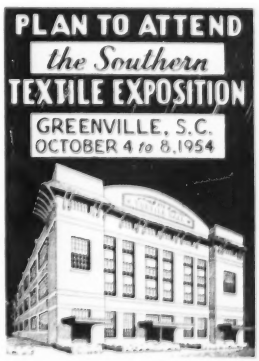
Fringe Benefits Hit New High. Preliminary reports from a National Chamber of Commerce survey of 529 companies show that fringe benefit costs—social security, pensions, vacation pay, insurance, etc.—amounted to $739 per employee in 1953, up $95 over figures from a similar survey made two years ago. Fringe benefits now make up 19.5 per cent of the total payroll, with pensions and other agreed-upon payments taking the largest share. Copies of the preliminary report, "Fringe Benefits —1953," are available from the Economic Research Department, National Chamber of Commerce, Washington 6, D. C. Price: 25 cents.

Conference on Fiber Friction. The Textile Institute (England) will sponsor a conference on fiber friction to be held at Ghent, Belgium, September 9 to 13, 1954. Details are available from the Institute's secretary, at 10 Blackfriars St., Manchester 3, England.

Mills Need More Consumer Research. Research directed to improved methods of distribution and selling techniques offers a fertile field for the cotton industry, according to J. Craig Smith, ACMI president. This must be coupled with research in the other segments of the industry—breeding, ginning, merchandising, and spinning—where phenomenal advances have already been made, but where past attainments are "only a prologue to what we can do." The ultimate preference among fibers is up to the consumer, who will base his choice on price and quality, whether the goods are made up of cotton, synthetics, or blends.

Plan to Educate Engineers. A joint program "to provide the ideal education for tomorrow's engineer" has been undertaken by Georgia Institute of Technology at Atlanta, and The University of the South, Sewanee, Tenn. Under the program, potential engineers will first spend three years in a liberal arts curriculum at Sewanee, and then will study for two years in their engineering specialty at Georgia Tech. On completion of the five-year course, students will receive both the bachelor of arts and engineering degrees.

Automation But No Robots. Management must keep up with developments in automation or risk being left behind in this fast-moving technical age. However, don't look for robotized labor—instru-



FOR SUPERIOR LUBRICATION OF WORSTED TOPS...

ALL ADVANTAGES POINT TO HOUGHTON

SULFOL 448

A WOOL OIL that won't oxidize, stain, turn rancid or discolor stocked woolens—a self-emulsifying oil with perfect lubricity for worsted tops—that's Houghton's SULFOL 448. Try it . . . it's approved for certification by the Wool Associates of the New York Cotton Exchange. Ask the Houghton Man for latest bulletin or write to E. F. Houghton & Co., 303 W. Lehigh Ave., Philadelphia 33, Pa.

SULFOL 448 WOOL OIL

...a product of

E. F. HOUGHTON & CO.

PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

Ready to give you on-the-job service . . .

ments will take the heavy muscle out of human toil, but men will still have to do the thinking and make the decisions. So say two of Minneapolis-Honeywell's instrumentation engineers.

Shorts (But No Remnants). Sales of walking shorts for men are up 50 per cent over last year, according to Samuel Lipson, vice-president of Commercial Factors Corp. An innovation of the 1954 season is the "one-and-a-half suit," with both long and knee-length pants, said to be an aid in selling shorts to men who are hesitant about taking the plunge altogether.

R. I. School of Design Scholarships. First recipients of the Rhode Island School of Design textile scholarships are A. P. Mullery and W. P. Ironside of Rhode Island, and B. J. Park of Korea.

Industry Activity Charts. With this issue of TEXTILE INDUSTRIES, publication of the "Textile Industry Activity Charts" is resumed (on this page). March, April, May, June, and July issues did not contain the charts because of modifications and/or elimination of some of the reports that served as a basis for their preparation. Note on these new charts:

1. Basis for the "General Business" chart has been changed from "1935-1939 = 100" to "1947-1949 = 100".

2. Instead of "Woolen and Worsted Loom Activity," which was discontinued with the November, 1953, issue because the information was no longer available, "Woolen and Worsted Systems Fiber Consumption (Weekly Average in Millions of Pounds, Scoured Basis)" is given.

3. Instead of quarterly production of "Rayon Broad Woven Fabrics," a chart showing production of "Synthetic Broad Woven Fabrics (Quarterly Average, Million Linear Yards)" is presented. This includes not only rayon and acetate broad woven fabrics, but nylon broad woven fabrics (100%), and other synthetics and silk fabrics (including mixtures except those primarily cotton, wool, rayon, or acetate).

4. "Hosiery Shipments" now reported quarterly, not monthly.

Short Worsted System. An abridged spinning system, the "Kepa," has been announced by the German firms of Deutsche Spinnereimaschinenbau AG and Zinser Textilmaschinen GmbH for worsted, cotton, and cotton waste. Equipment consists of three gill boxes, high-draft drawing frame, and high-draft spinning frame.

Date Set for 1956 ACMI Meet. The 1956 annual meeting of the American Cotton Manufacturers Institute will be held at the Hollywood Beach Hotel, Hollywood Beach, Fla., April 5 to 7. As previously reported, the 1955 meeting will be in Palm Beach, Fla.

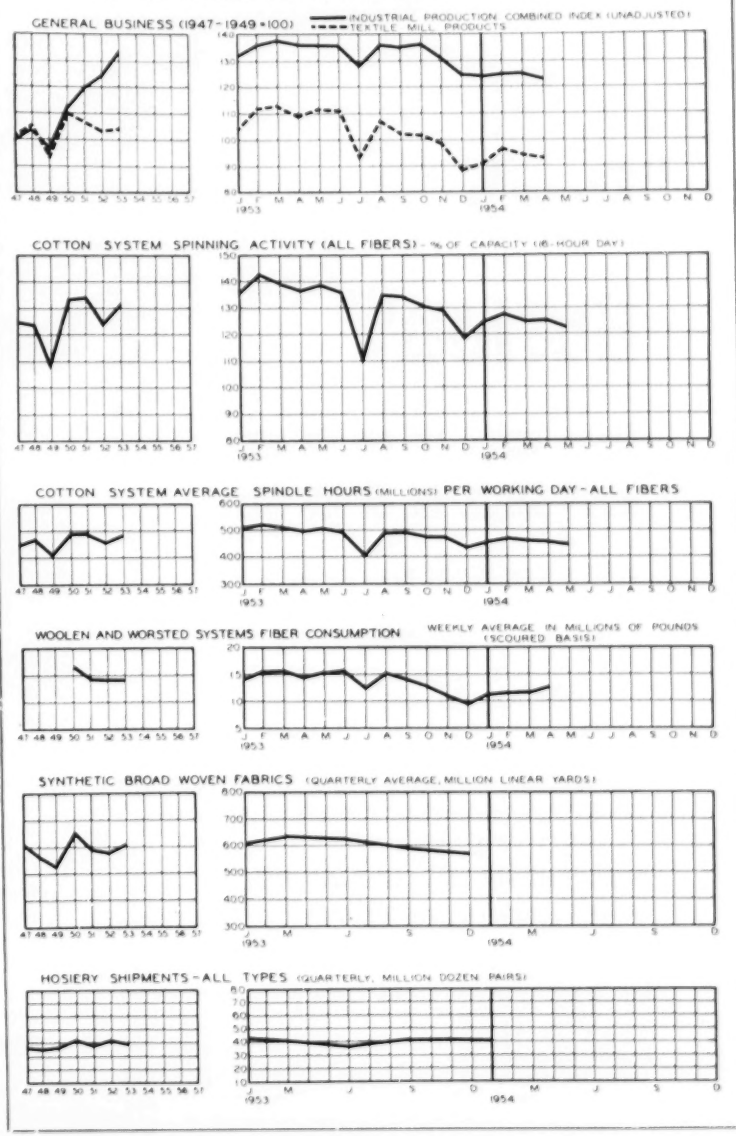
Hosiery Fashion Note. The latest

(Continued on page 194)

News in Brief

Textile Industry Activity Charts

Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.


GENERAL BUSINESS (1947-1949=100)
INDUSTRIAL PRODUCTION, COMBINED INDEX (UNADJUSTED)
TEXTILE MILL PRODUCTS
COTTON SYSTEM SPINNING ACTIVITY (ALL FIBERS) - % OF CAPACITY (8-HOUR DAY)
COTTON SYSTEM AVERAGE SPINDLE HOURS (MILLIONS) PER WORKING DAY - ALL FIBERS
WOOLEN AND WORSTED SYSTEMS FIBER CONSUMPTION
WEEKLY AVERAGE IN MILLIONS OF POUNDS (SCOURED BASIS)
SYNTHETIC BROAD WOVEN FABRICS (QUARTERLY AVERAGE, MILLION LINEAR YARDS)
HOSIERY SHIPMENTS - ALL TYPES (QUARTERLY, MILLION DOZEN PAIRS)
1953
1954

AUTOMATIC

100% SATURATED

ALWAYS READY TO USE

"Push Button" BRINE

When You Want It . . .
Where You Want It . . .
With Lower Handling Costs

So simple you'll wonder why it wasn't thought of years ago. So sound and practical, it fits any and all types of operations. Write, and our representative will show you how the LIXATE Process adapts to *your* plant. No cost, no obligation.

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INDUSTRIAL DIVISION, SCRANTON 2, PA.

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HERE'S HOW THE LIXATOR WORKS

1. Sterling Rock Salt is stored right in the hopper of the Lixator. Automatically, it feeds by gravity to the—

2. Dissolution Zone where water dissolves the rock salt to make 100% saturated brine.

3. Gravity then filters the brine through a bed of *un*dissolved rock salt and—

4. it flows, or is pumped, through the pipes directly to where you need it.

The **LIXATE*** *Process*
FOR MAKING BRINE
*Reg. U. S. Pat. Off.

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Value of Statistics

THERE was a time not so many years ago when any one who dared to plot a curve on a sheet of draft paper, or who dared to arrange a set of figures in the form of a table, was thought of as a "long-hair" and far too impractical to operate a textile mill.

There are still vestiges of that feeling remaining but it has seemed to us, as we went around through the textile industry during the past few years, that more and more people are coming to the realization that a proper study and evaluation of what has happened in an industry might very well lay the foundation for a considered opinion, or at least an "educated guess," as to what is going to happen in the future.

As an example of this thinking, we can readily point to several speeches which have been made in recent months, and which have been built around the theme that the long-range future of the textile industry is going to be good because the population curve is rising steadily. More people in this country mean more homes to be furnished with sheets and pillow cases, towels and wash cloths, more clothes to be worn, and more automobiles to be upholstered.

If our memory serves us correctly, the address of H. K. Hallett, then president of American Cotton Manufacturers Institute, at New Orleans this year was largely based on this sort of statistical analysis of the future of the textile industry.

A much more exhaustive use of statistics may be found in the study recently made by a New York advertising firm which showed that the consumption of cotton would increase but its percentage of the total would decline to about 50 per cent. Incidentally, the same study pointed out that rayon and acetate were likely to reach a poundage 80 per cent greater than today.

Both of these predictions were projections to the year 1975 and, whether they are correct or not, they illustrate the point that statistics are being used more and more in this uncertain world.

Perhaps the most prolific source of textile statistics is the Federal Government. Generally speaking, the Government's figures lag at least several months behind industry activities and, for that reason, much of their value is destroyed. Nevertheless, the Bureau of Labor Statistics, and other agencies of the Department of Labor, issue numerous reports on wages, hours, employment, strikes, and many other subjects.

Additionally, the Bureau of the Census of the U. S. Department of Commerce issues reports on spindles and spindle hours, and related matters. Various divisions of the U. S. Department of Agriculture issue reports which are of interest to the textile trade, because they depict the production of cotton by staple lengths, ginnings, and number of acres planted in cotton.

For a number of years the ginning reports have been issued on a twice a month basis during the ginning season, and a recent announcement from the Department of Agriculture that consideration was being given to reducing this schedule to once a month created enough furor among the cotton mills to show that cotton buyers were following this statement regularly.

Additionally, a number of textile trade associations compile and release statistics, some of which are consolidations and compilations of government figures, while others are based on data collected directly from the mills. These latter figures, the ones collected directly from the mills, are by far the most valuable of all the statistics available about the industry, because they are compiled by people who know their particular segment of textiles, and what is just as important, they are distributed promptly.

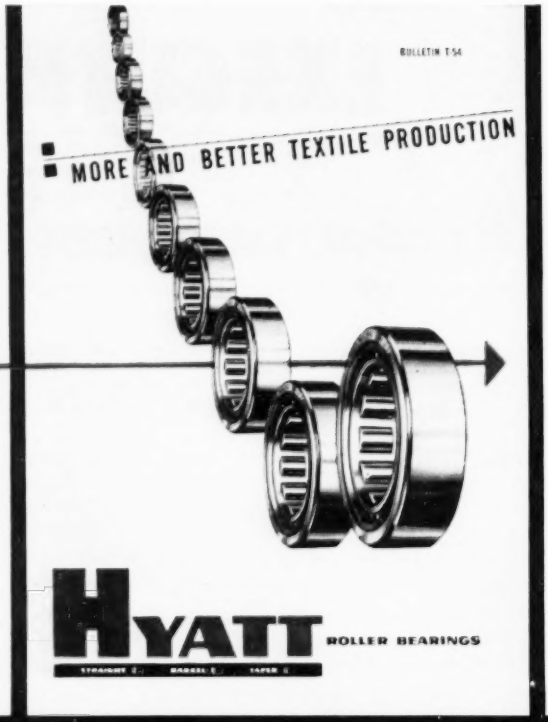
As we understand it, there is no law or regulation or anything else which makes it improper to collect statistics on production, stocks, shipments, etc., as long as those figures are not used in a conspiracy to regulate production or prices.

We have always felt that one thing which has kept statistics from coming into their own has been the difficulty of pronouncing the word but, be that as it may, it seems that more and more mill executives are by-passing this obstacle. We are glad to see the trend in this direction.

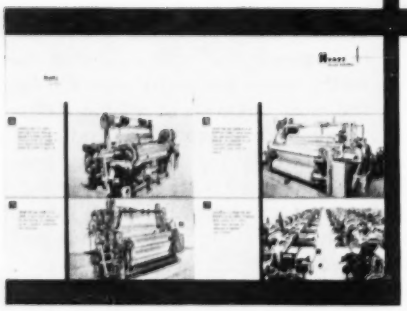
Certificated Cotton

Recent publication of a letter from Senator Aiken (R-Vt.) disclosed the fact that the Senate Committee on Agriculture and Forestry, of which Senator Aiken is Chairman, is giving some consideration to certificated stocks of

Announcing



the new Hyatt roller bearing textile bulletin...



"MORE AND BETTER TEXTILE PRODUCTION"

This 36-page booklet illustrates the latest uses of roller bearings in textile equipment. It shows where and how you can apply roller bearings to increase your mill production.

It shows how roller bearings are used:

IN CARDING EQUIPMENT—to help maintain cylinder and lickerin settings; to permit smooth rotation of the workers and strippers.

IN DRAWING AND ROVING FRAMES—to prevent top rolls from binding; to permit ease of operation of back weight sheaves and lifter arms.

IN TWISTING AND SPINNING FRAMES—to get smoother cylinder operation; to allow for greater spindle speeds and package sizes.

IN LOOMS—to prevent wear of principal shafts; to eliminate oil splatter; and to decrease loom power requirements.

IN FINISHING EQUIPMENT—to retain bearing lubricants at all temperatures; to prevent oil damage to finished fabrics.

IN MOTORS—to prolong motor life; to maintain the gap between rotor and stator.

All of these applications—and many others covered in the bulletin—can help you get "more and better textile production".

Requests for this new textile bulletin should be addressed to Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

STRAIGHT BARREL TAPER

cotton. In the opinion of most people in the textile industry, the Senate Committee is a little late getting around to this subject, but all of these same people would agree that it is better to be late than never.

To use the stock phrase, "informed industry sources" have pointed out before this that the Cotton Futures Contract calls for delivery on the basis of the Government class, and that the principal protection of the contract against manipulation is the integrity of the certificated stock. It has long been the cry among mill cotton buyers that much of the certificated stock is over-classed and over-valued. As a result, they say, the value of the contract has been depressed. For some time now the mills have been calling upon the Department of Agriculture to improve the caliber of the classing and to protect the classers from influence in order that the integrity of the certificated class might be protected.

It has also been pointed out that when cotton is classed by the Department of Agriculture for certification, the owner may complain to the classing boards if he is not satisfied with what he receives. In other words, a farmer who may carry considerable weight in his own community may go before the Board and scream loudly enough to get an increase in the class. The effect of this is that classing boards are made subject to all sorts of pressures, and even though they may make every effort to be honest and fair in their dealings, they are only human like the rest of us.

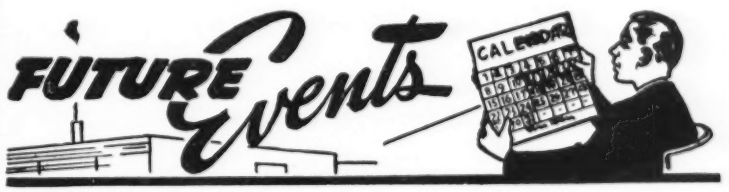
Washington Classing

Several recommendations have been made for improvement in this situation, and the one which seems to us most likely to succeed is really a two-pronged effort. The first prong calls upon the Department of Agriculture to do its utmost to obtain the best-trained classers available. The second prong is that the owner of the cotton never be identified while the Board is considering the class to be assigned. In this way the small farmer who raises a couple of bales down by the creek would have the same chance as would the big "industrial farmer" of the California valleys.

Somewhere along the line it has also been suggested that no more classing be done at ports such as New Orleans and Galveston, and that it be done in Washington instead. The intent here is a good one because it would take the Classing

(Continued on page 199)

EXECUTIVE Views
THE NEWS IN TEXTILES



Sept. 9-12—Fourth Canadian Textile Seminar, Queen's University, Kingston, Ontario, Canada.

Sept. 9-13 — Textile Institute Conference at Ghent Belgium. Subject: Fiber Friction.

Sept. 13-14—Fall meeting of The Fiber Society, McGill University, Montreal, Canada.

Sept. 15-16—National convention, American Association of Textile Chemists and Colorists, Biltmore Hotel, Atlanta, Ga.

Sept. 23-24—Annual meeting, Combed Yarn Spinners Association, Grove Park Inn, Asheville, N. C.

Sept. 25 — Fall meeting, **Alabama Textile Operating Executives,** Thach Hall, Alabama Polytechnic Institute, Auburn, Ala.

Sept. 28-30 — **Industrial Packaging and Materials Handling Exposition,** Competition, and Short Course, The Coliseum, Chicago, Ill.

Oct. 1 — Fall meting of the **Carolinas Section of the American Society for Quality Control,** School of Textiles, N. C. State College, Raleigh, N. C.

Oct. 4-8—18th Southern Textile Exposition, Textile Hall, Greenville, S. C.

Oct. 4-9 — **International Technical Textile Conference,** Barcelona, Spain.

Oct. 7-8—Annual **Chemical Finishing Conference,** sponsored by the National Cotton Council of America, Statler Hotel, Washington, D. C.

Oct. 14-15—Annual convention, The Quartermaster Association, Sheraton Plaza, Boston, Mass.

Oct. 14-15—Annual meeting, North Carolina Textile Manufacturers Association, Carolina Hotel, Pinehurst, N. C.

Oct. 23—Fall meeting, **Textile Operating Executives of Georgia,** Georgia Institute of Technology (A. French Textile School), Atlanta, Ga.; topics: slashing and weaving.

Nov. 4-5 — Annual Mid-Atlantic **A. I. E. E. Textile Conference,** North Carolina State College, Raleigh, N. C.

Nov. 10-12 — 18th annual **Time and Motion Study and Management Clinic,** sponsored by the Industrial Management Society, Sherman Hotel, Chicago, Ill.

Nov. 15-17—Fifth national Conference of Standards, sponsored by the American Standards Association, Hotel Roosevelt, New York City.

Nov. 28-30 — Annual meeting, **American Society of Mechanical Engineers,** Hotel Statler, New York City.

Dec. 2-7 — 21st **National Exposition of Power and Mechanical Engineering,** Commercial Museum, Philadelphia, Penna.

1955

Jan. 24-27—Plant Maintenance and Engineering Show, International Amphitheatre, Chicago, Ill. Held in conjunction with conference at Conrad Hilton Hotel.

Jan. 31-Feb. 1—Annual convention, National Cotton Council of America, Hotel Shamrock, Houston, Texas.

Jan. 27-29—Annual conference, Textile Div., American Society for Quality Control, Clemson (S.C.) College.

Feb. 16-18 — Cotton Research Clinic, sponsored by the National Cotton Council, Pinehurst, N. C.

Mar. 31-Apr. 2—Annual meeting, American Cotton Manufacturers Institute, Palm Beach (Fla.) Biltmore Hotel.

May 4-5—Spring meeting, The Fiber Society, Alabama Polytechnic Institute, School of Textile Technology, Auburn, Ala.

May 16-20—Materials Handling Exposition, International Amphitheatre, Chicago, Ill.

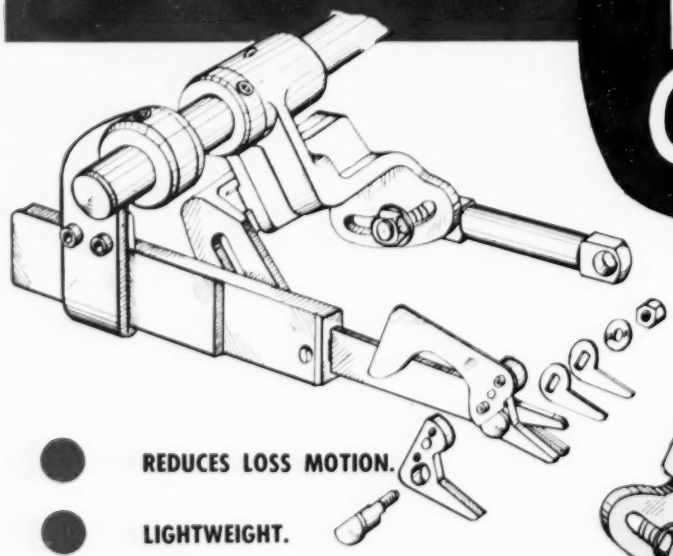
June 25-July 10—International Textile Exhibition, Brussels, Belgium.

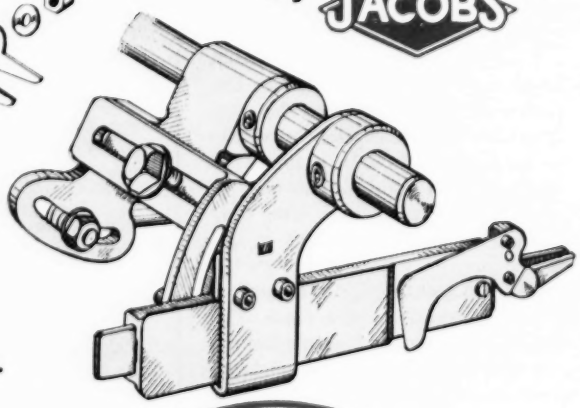
Sept. 8-9—Fall meeting, The Fiber Society, Massachusetts Institute of Technology, Cambridge, Mass.

Now Eliminate "DRAG-INS"

with the New "VERYBEST" THREAD CUTTER

by JACOBS





- REDUCES LOSS MOTION.
- LIGHTWEIGHT.
- CUTS AND HOLDS all types of yarn.
- FITS all battery looms. Simple construction.
- SAVES DOWN TIME.
- EASIER, FASTER to fix.
- POSITIVE opening and closing eliminates "drag-ins".

Let a JACOBS Service Engineer show you all the cost savings this new Thread Cutter can give you now!

THE BULLARD CLARK CO.

JACOBS

SOUTHERN DIVISION
Charlotte, N. C.

NORTHERN DIVISION
Danielson, Conn.

NEW Equipment AND MATERIALS

Faster and More Uniform Sizing with this Slasher Squeeze Roll

Faster and more uniform sizing of warp yarn is provided by the new Dayco Thoro-Size slasher roll.

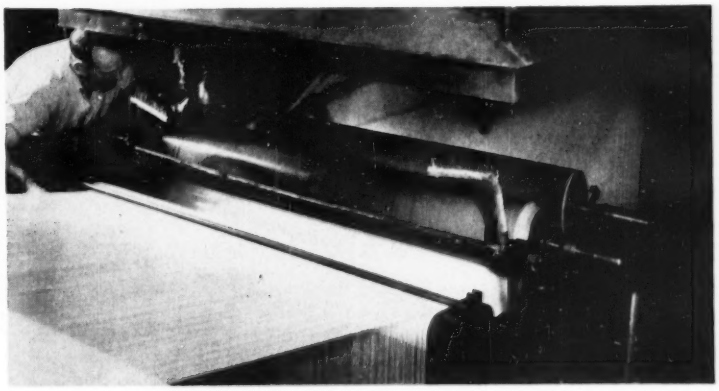
Warp yarn is now effectively impregnated with the starch sizing solution without damaging or marking the fibers because of the long-lasting resiliency of the roll surface. Excess solution is "squeegeed" back into the tank.

The rolls require no covering, do not have to be removed when changing sets, and they are not affected by the sizing solution, oils or chemicals. The elasticity of the surface cushions the yarn and permits sizing operations to get under way as soon as the mill is started.

The slasher rolls give finer sizing for longer yarn runs. They can be resurfaced for matchless performance for two or three times the normal period.

Dayton Rubber Co., Dayton 1, Ohio.

For additional data, request item H-212, using Handy Return Card on page 169.



Size box equipped with Dayton Rubber's Thoro-Size slasher roll.

Type PK-211 SKF pendulum weighting arm for spinning frames.

Pendulum Weighting Arm for Spinning Frames Eliminates Many Parts

Especially useful for guiding and weighting the top rolls of cotton system ring spinning frames with single-apron and double-apron drafting mechanisms is the Type PK-211 SKF pendulum weighting arm which eliminates use of cap bars, saddles, hooks, and dead weights, and can be fitted to both new and old frames.

The arm permits individual guidance of top rolls and insures parallel tracking with bottom steel rolls at all times. Since each roll is weighted by its own coil spring, top rolls can be adjusted separately without affecting load distribution.

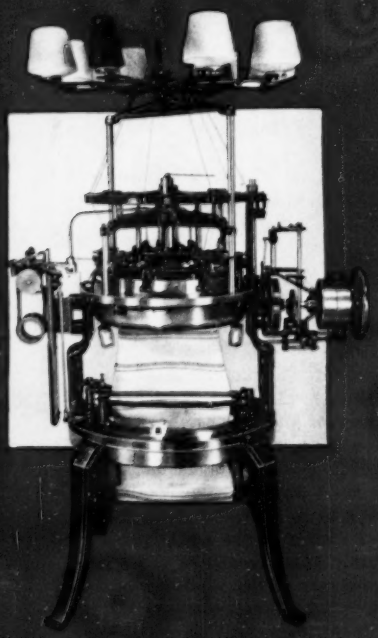
By means of a few adjustments, the main drafting field and the break draft field can be adjusted independently. This adjustment will not affect the loading. Roll setting can be adjusted with the aid of adjusting gauges after the pendulum weighting arm has been swung upwards.

Standardized top rolls can be used. They are interchangeable with frames having identical gauges, without taking into consideration the length of the shaft. Roving can be threaded between the rolls from the side. Lap-ups can be removed sideways. Drafting mechanism can be easily kept clean. All top rolls have closed ends.

Front rolls can be easily replaced during operation. Whole drafting field can be unloaded or loaded by one simple operation. Enclosed design largely prevents accumulation

An Important Message to all Producers of Knitted Wear

New color television represents "Keeping in step with the times," as do these developments . . . .



WHEN YOUR NEEDS ARE STEPPED-UP PRODUCTION...

THIS IS THE RIGHT MACHINE FOR YOU! . . .

The Wildman Rib Fabric Striping Machine

This machine is right for you because of the increased production it offers in the combinations of variety of stitches (one by one or two by two fabric) striped fabric of unlimited patterns, half cardigan, English or round welt, French or Tubular welt and clearing course or draw thread.

It's right for you because it operates as a single feed machine or in any combination of feeds producing fabrics for cuffs, collarettes, sweater bottoms, underwear, outerwear, sportswear and beachwear. Belt or individual motor drive.

Get complete information on its versatility, today — the WILDMAN Rib Fabric Striping Machine.

WILDMAN

MFG. CO., NORRISTOWN, PA.

MANUFACTURERS OF: FULL FASHIONED HOSIERY MACHINES; CIRCULAR MACHINES FOR OUTERWEAR, UNDERWEAR, SPORTSWEAR, TRIMMINGS; STOP MOTIONS

of fly. Front section of pendulum weighting arm can be pulled out and reinserted simply. No parts are subject to wear, and all are protected against corrosion by electroplating and bonderizing.

Loose-boss rolls are recommended for the front and fixed-boss for middle and back positions.

SKF Industries, Inc., P. O. Front St. and Erie Ave., Philadelphia 32, Pa.

For additional data, request item H-117, using Handy Return Card on page 169.

Spinning Traveler Features Balance and Reduced Air Resistance

Large package spinning is greatly improved with the new Wentworth Bal-Ellipsoid traveler which features balance and reduced air resistance. Similar results are expected on conventional spinning, the manufacturer states.

Shaped similar to an ellipsoid field, it closely follows the contour of the ring flange itself, thus providing the reduction in air resistance. The bow of the traveler is perforated, serving two purposes: (1) to create balance, and (2) to perfect the heat treating condition which actually doubles life. Equilibrium has been improved so that the traveler resumes its normal position very quickly after responding to hundreds of different strains and motions.

National Ring Traveler Co., Pawtucket, R. I.

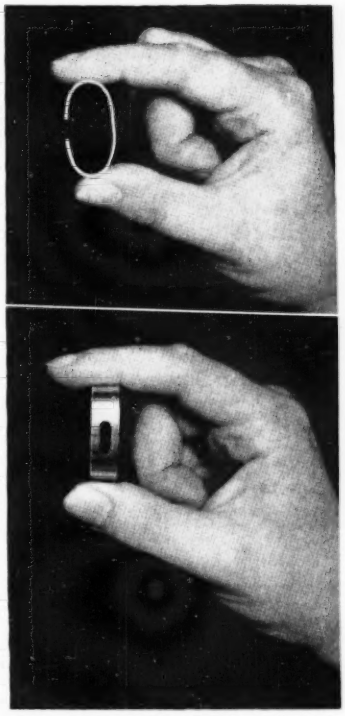
For additional data, request item H-202, using Handy Return Card on page 169.

4 Finishing Machines in 1

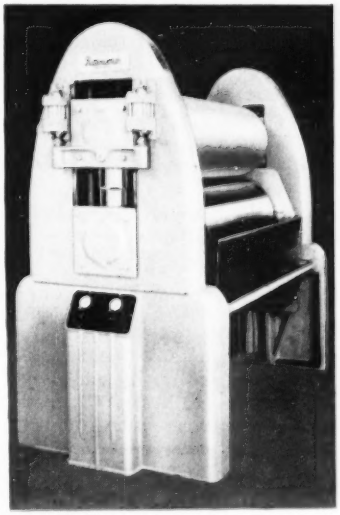
Two new machines for textile finishing, designated the Standard "Rocket" and "Auto-Rocket," can be used as a 2- or 3-roll padder; 2- or 3-roll mangle; 2-roll embossing calender; or 2- or 3-roll rolling calender.

(1) The Standard "Rocket"—built to provide independent pressure control for each side of the machine. Used where there are frequent applications for different pressures per side.

(2) The "Auto-Rocket"—can do everything the Standard "Rocket" can do, but in addition, it is equipped with a pressure-equalizer which automatically maintains absolute uniformity of pressure across the face of the rolls. Should the operator adjust the pressure settings incorrectly, that is with different pressure settings per side, the "Auto-Rocket" will automatically take the average of the two settings and maintain that pressure evenly from side to side. It is virtually impossible to obtain uneven pressure per side unless desired. If separate pressure control is required, it can be obtained by closing a valve and thus shutting off the automatic pressure equalizer.



Two views of the Wentworth Bal-Ellipsoid traveler by National Ring Traveler Co.



Butterworth's "Auto-Rocket" multi-purpose finishing machine.

Hydraulic-pneumatic control of roll pressure ranges from 0 to 30 tons. Controls are built into the unit. Driven roll at bottom is stainless steel; top roll is rubber. To convert the machine into any of its four applications, it is necessary merely to remove the top cap of the machine frame and lift the rolls out of the machined guides. This machine is furnished completely piped for both pneumatic-hydraulic-control circuits, and in changing rolls no lines need be disturbed.

Standard roll widths are 50", 60", 66", and 72"—other widths are furnished as required.

H. W. Butterworth & Sons Co., Bethayres, Pa.

For additional data, request item H-211, using Handy Return Card on page 169.

New Burr Crusher Acts on Web at Wool Card

B. F. Perkins & Son is now manufacturing a burr crusher for installation on wool cards that crushes burrs in the web (for several years this manufacturer has marketed a burr crushing device which crushes the card sliver).

Hydraulic or pneumatic loading of the rolls can be provided.

B. F. Perkins & Son, Inc., Holyoke, Mass.

For additional data, request item H-201, using Handy Return Card on page 169.

Picker Stick of Compressed Impregnated Wood Durable and Flexible

Exceptional durability and flexibility are outstanding features of Pakkawood compreg picker sticks recently placed on the market.

These picker sticks are manufactured by the Adams Plastics Co., Inc., of Holyoke, Mass., from compreg boards made up of a series of carefully selected birch veneers which have been treated with a phenol-formaldehyde impregnation, after which the required number of veneer

1,250,000 SPINDLES WITH

. . . . more and more mills completely modernizing their frames, improving yarn quality and increasing profits with ROBERTS equipment.* Thoroughly time-tested, this scientifically designed drafting system produces finer, stronger yarns at reduced costs.

ROBERTS

. . .. is the only manufacturer of complete drafting systems including "No-Oil" cap bars and saddles. A staff of textile engineers and skilled technicians supervise the installation and periodically inspect all Roberts equipment with prompt, dependable service.

HIGH-DRAFT CHANGE-OVERS

. . . save time, labor and money because they

1. Produce higher break factors and better yarn evenness.
2. Eliminate top roll oiling and reduce roll picking.
3. Provide better running work and reduced ends down.
4. Reduce roving processes and permit higher front roll speeds.

*** ROBERTS Gets 260,000 Spindle Change-Overs**

One of the nation's leading mills has just placed an order for ROBERTS High-Draft Change - Overs for more than 260,000 spindles—the largest single order for this type of equipment ever placed.

Talk to our salesman for complete details at your convenience—or see us at—

BOOTH 125
SOUTHERN TEXTILE EXPOSITION
October 4-8

ROBERTS COMPANY
Sanford, North Carolina, U. S. A.

sheets are assembled in a heavy-duty press to produce Pakkawood boards of a desired thickness.

Because the manufacturer of these picker sticks also produces the boards from which the sticks are made, he is able to control the quality of the sticks from the purchase of the raw materials to the finished stick. Sole distributors are:

U. S. Bobbin & Shuttle Co., Lawrence, Mass., or Greenville, S. C.

For additional data, request item H-213, using Handy Return Card on page 169.

Vertical Spooler Features Several Improvements

Recent improvements to the U. S. Acme Vertical Spooler permit operation with bottle-type or conical yarn packages. The machine is equipped with a new staggered-position supply board which handles yarn from cakes, pirns or sizing tubes; a new tensioning device for processing Dacron yarns; and a positive gear-driven yarn oiling mechanism.

U. S. Textile Machine Co., Scranton 8, Pa.

For additional data, request item H-701, using Handy Return Card on page 169.

Roller-Bearing Comb Box Requires No Adjustments

A roller-bearing comb box has been designed for cards which is smoother and cleaner in operation, and more economical in maintenance, than the split bushing type.

Within the box, there are six roller bearings of a size and capacity to assure a long life—with a large factor of safety, reduction of noise, and virtually no wear. No adjustments of any kind are necessary. There is no appreciable wear to require "taking up," there is no oil leakage, and there is very little power consumption and practically no vibration.

Basically the comb box consists of a pulley-driven crank shaft, a link for transforming the rotary motion of the crank shaft to an oscillating motion, and a fork for receiving the oscillating motion and transmitting it to the comb shaft.

A special stand for the opposite end of the comb shaft is provided as a counterpart to the new comb box. This consists of a roller bearing and seal in a housing which is vertically adjustable upon its stand to provide perfect alignment of the comb. The stand is adjustable, as usual, horizontally.

These two assemblies will soon be available for new Saco-Lowell cards and also as replacements on older Saco-Lowell cards.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item H-107, using Handy Return Card on page 169.

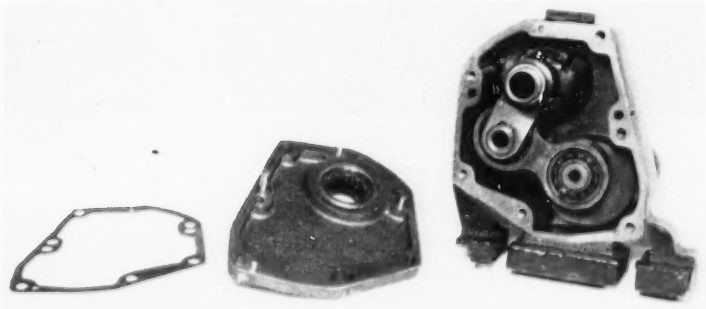
Napping Speeds of 100 ypm with Vertical Machine

Cottons, woolens, spun synthetics, and blends of any weight can be processed at speeds up to 100 yards per minute with the Parks & Woolson vertical high speed napper. One run through the machine finishes back and face at the same time or one side.

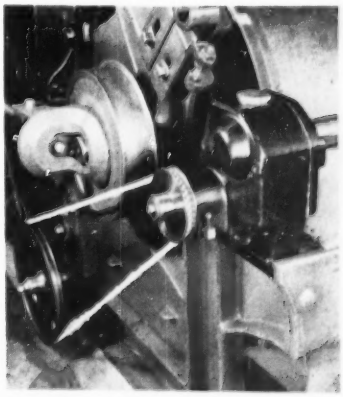
A thicker, fuller nap is produced uniformly without shearing. Very little flocking out occurs so stock is saved.

Designed for tandem operation in a range finishing at high speeds and one run, the machine is built so that more banks of napper workers can be added if and when needed.

Positive, quick change of energies



Components (below) and mill installation photo (right) of Saco-Lowell's new roller bearing comb box.



NEW Equipment AND MATERIALS

can be accomplished. Graduated adjustable cloth contacts assure consistent, dependable reproduction of finishes.

Parks & Woolson Machine Co., Springfield, Vt.

For additional data, request item H-126, using Handy Return Card on page 169.

Instrument Shows Process Causing Yarn Unevenness

The Uster Spectrograph for the advanced interpretation of yarn evenness is directly connected to a Uster evenness tester and from yarn tests alone indicates the manufacturing process that is causing unevenness in the yarn.

Repeats of unevenness in the tested yarn are automatically spotted and recorded, thereby eliminating the tedious interpretation experience necessary to recognize these repeats.

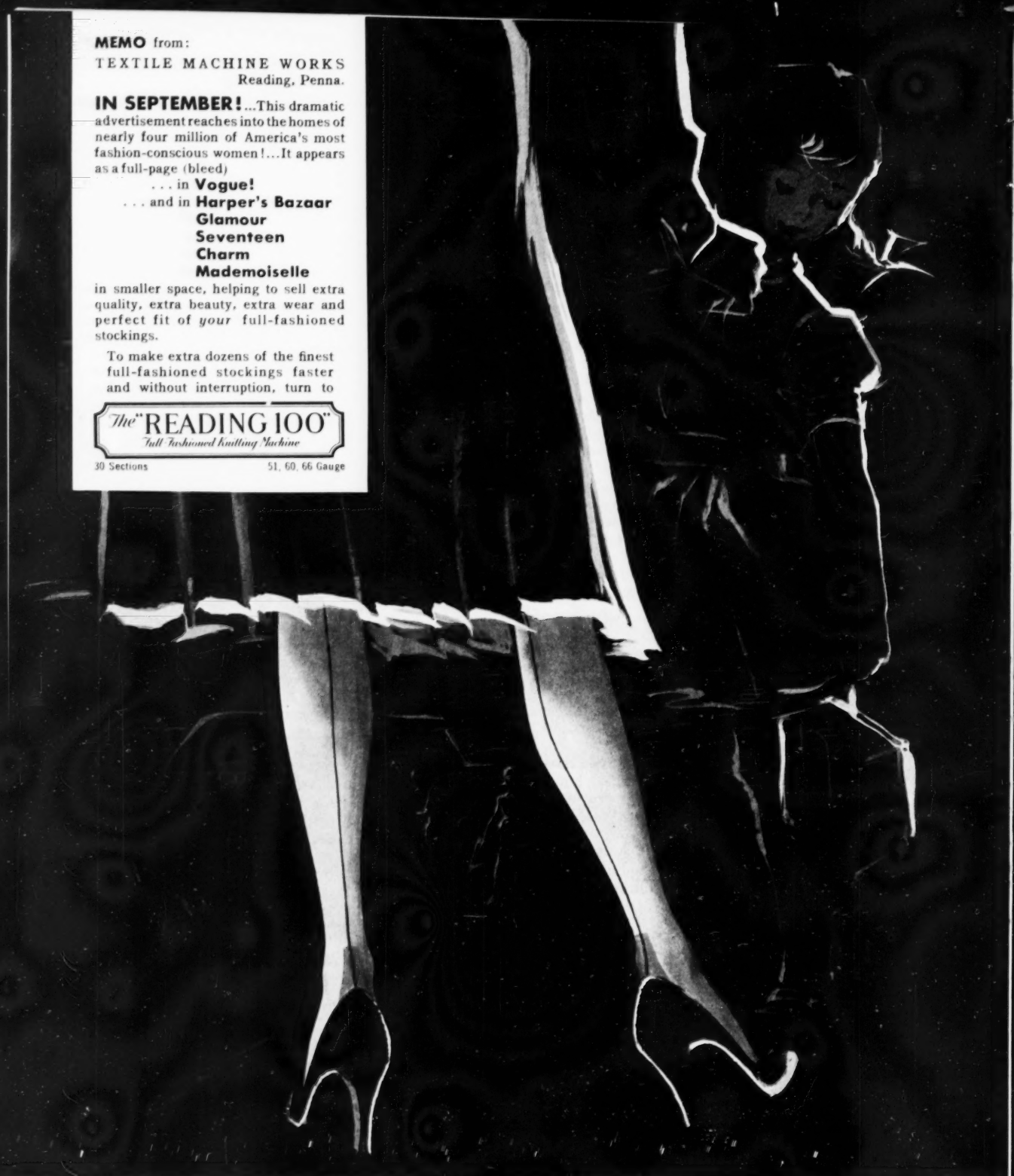
The Spectrograph, by exposing faulty manufacturing methods, multiplies the value of evenness testing many times over.

Uster Corp., 2516 Wilkinson Boulevard, Charlotte, N. C.

For additional data, request item H-801, using Handy Return Card on page 169.

NOTE

65 additional items are described on pages 148-188.



MEMO from:
TEXTILE MACHINE WORKS
Reading, Penna.

IN SEPTEMBER!...This dramatic advertisement reaches into the homes of nearly four million of America's most fashion-conscious women!...It appears as a full-page (bleed)

. . . in **Vogue!**
. . . and in **Harper's Bazaar**
Glamour
Seventeen
Charm
Mademoiselle

in smaller space, helping to sell extra quality, extra beauty, extra wear and perfect fit of *your* full-fashioned stockings.

To make extra dozens of the finest full-fashioned stockings faster and without interruption, turn to

The "READING 100"
Full Fashioned Knitting Machine

30 Sections 51, 60, 66 Gauge

A STUDY IN FASHION . . . WITH FULL-FASHIONED, OF COURSE!

Smart women know the lesson of true leg beauty shown to advantage *only* in full-fashioned stockings . . . The finely etched seams provide the exclamation point for the exciting statement of the complete costume. And full-fashioned stockings are contour knit for perfection of *fit*, *wear* and *leg flattery*. Your legs—at their loveliest in full-fashioned stockings . . .

© 1954 Hosiery Fashion

Keep it up long enough

and we can destroy the other fellow

and ourselves with

Cutthroat Competition

By Ringgold Arden
EXCLUSIVE

THE TEXTILE industry has for some time now been operating in a period of cutthroat competition. At first, members of the industry were busy trying to cut their competitors' throats, but more recently they have also been cutting their own.

Competition is the mainspring of business in the American economy. It is what largely determines quality and regulates prices, and it has been primarily responsible for the development of our vaunted standard of living.

Competition should, however, stop short of the throat-cutting stage, where business people throw reason and prudence to the winds and sell the products of their factories at utterly ruinous prices.

Sensible, logical competition is an excellent thing, but when it is decked out with too many lunatic trimmings, it can become very dangerous, and degenerate into a series of fights to destroy competition rather than to meet it intelligently.

The fundamental problem of the American textile industry today is its ability to produce more goods than a peacetime economy can consume. It is the same problem that arose just after the First World War. During that war, under constant Government urging, the textile industry had geared up to produce more goods than it had ever produced before, and after the war everybody in the industry wanted to keep on producing at this same delightful and profitable rate. This being impossible, the New England cotton mills, which were incapable of competing with the southern mills, largely went out of business to cut production down to a manageable point.

The woolen and worsted mills, almost entirely located in New England and other northern states, pined away until many of them were shut down, and many others dragged along on short time.

About the time a balance had been reestablished, so that the mills were producing about what customers would take, we got into another war, and before it was over the textile industry was producing about 80 to 100 per cent more goods than it had ever processed before in a period of peace. Moribund woolen and worsted mills were running for some time on profitable orders, and some of the high-cost cotton mills in New England began paying substantial dividends. Nearly all of these mills which flourished artificially during the war are now in desperate circumstances, and some of them have already gone to the wall while many others are headed for it.

In the cotton textile industry there is a tremendous difference between the over-production problems after the First World War and those which are now plaguing us. There is now no considerable high-cost New England textile production to be wiped out to reduce the supply of goods to a manageable point, and the cotton mills are fighting each other on a fairly even basis instead of under the unequal conditions that existed when a weaver was running eight looms in Fall River and 80 in South Carolina.

The problem today seems to be much more of a dog-eat-dog proposition than it was then, when the southern cotton industry could destroy the New England industry to save itself, while today it has only itself to destroy.

Worsted and woolen mills have a doubly aggravating problem. Most of this industry is still in the North, where costs are unreasonably and sometimes fantastically high, but some woolen mills have been established in the South during the past few years so that the northern woolen mills are now up against the same proposition that the northern cotton mills were bucking 30 years ago.

In addition, there is the grave

Sales Consciousness Promoted to Operatives As Key to Jobs

Sales consciousness as the key to jobs and prosperity is the theme of an employee-attitude - conditioning - program now being conducted in 7,500 companies in the United States and Canada, it was reported recently.

The importance of employees' "being quality, cost, and customer conscious" is being promoted aggressively in the latest series of weekly poster bulletins being supplied to these companies by Kelly-Read & Co., Rochester, N. Y., personnel development specialists.

The illustrated, multi-color posters carry messages like those pictured here.

"It has become apparent that continued prosperity depends on the ability of business and industry to turn out quality goods and services at lowest possible prices," H. A. Wolff, Kelly-Read's executive vice-president, contended. "This prosperity starts with the attitude of the employee to his job.

"So it is essential to encourage job attitudes consistent with a competitive business picture," Mr. Wolff said.

"By keeping employees constantly reminded of the need for quality work, fewer mistakes, less waste, the need for

problem of changing buying habits which have shut down large segments of the worsted industry. There is actually no demand for many of these old standard woolen and worsted fabrics; whereas many of our cotton mill friends tell us that there is a big demand for their products, and that if they were foolish enough to accept the orders on the basis of present prices, they could sell out the mill for a year or more. The trouble with the cotton textile industry does not seem to be so much a matter of demand, as of demand in proportion to the over-expanded capacity to produce.

The textile markets have always been a weird and irrational proposition as far back as we can remember, and the people who manufacture textile goods always seem to be readily stampeded into selling what they make for just about anything a buyer is willing to offer, if he will just offer it. We remember when the City of New Bedford alone contained nearly four million spindles, which were predominantly on fine woven cotton fabrics. According to the frequent complaint of New Bedford manufacturers, the market for their goods was being set by two relatively small cotton mills in South Carolina. That two mills with a total of about 125,000 spindles could dictate the prices to nearly four million spindles in one city, and about two million more scattered around New England, seems like pure fantasy.

It was as absurd as to assume that some small automobile manufacturer could wreck General Motors by cutting prices, or that some tiny electrical equipment concern could put the General Electric Company out of business. Still, plenty of New Bedford treasurers and agents solemnly insisted that these two small mills set the American textile market for fine woven fabrics, and drove these New England plants into bankruptcy.

The cotton textile industry operates on a very small margin of manufacturing profit, and by the time its products reach the consumer it is doubtful if the ultimate buyer could ever tell the difference in h... price when the mills that made the fabrics were making money, or losing it. A cotton mill management which would be happy to net a five per cent profit for the production of goods will see a department store mark his goods up 100 per cent just to move them from the railroad car to the customer's parcel.

One of our readers recently mentioned that he had checked the price of his product in a mail order catalog and found it marked up over 60 per cent, and the mail order people are supposed to operate on a much narrower margin than ordinary retailers. The difference, therefore, between a price which will keep mills alive and a price which will destroy them is not going to make much difference in the ultimate cost of what the consumer buys.

The answer to the present problem of ruinous prices seems to be a simple application of commonsense, but this is very hard to apply when everybody wants everybody else to apply it while he overproduces. If everybody insists on overproducing, everybody will probably go broke within a reasonable length of time, because it seems that in the entire textile industry there are virtually no manufacturers who are capable of saying "no" to ruinous prices.

The simple resolution to refuse to sell anything at a loss, and a general agreement to eliminate third-shift operation, ought to relieve most of the present acute trouble and get textile markets stabilized.

As far back as we can remember, however, it has always been utterly impossible to get textile mill managements to agree about anything, and in those instances where groups of textile manufac-

serving customers, and of keeping sales up, industry and business are bound to do more and better business despite the return to a more competitive market," he added.

Top Business Executives Said to Need Development

Business executives, even the strongest and most successful ones, need further development in self-understanding and further growth in the understanding of others; ever better understanding of the dynamic social and economic forces at work; knowledge of the skill in applying scientific management; and increasing technical know-how in various functional specialties, say the authors of the book, "Developing Management Ability" recently published by Ronald Press.

Co-authors Earl G. Planty, executive counselor for Johnson & Johnson, and J. Thomas Freeston, personnel director of Ethicon, Inc., a J & J subsidiary, disprove some time-honored axioms in the comprehensive coverage of their subject. That "experience is the best teacher," is questioned by them. "The facts are that unguided experience is costly and can be completely fruitless in improving men or operations," they state.

Referring to the "timeliness" of executive development, the authors state: "Development is always timely, but it is most timely when it seems to be least needed; before expansion takes place. Any company which delays development programs until it finds itself building new plants, adding new products, and entering new sales territory is asking for trouble and sacrificing results."

Using the question and answer technique, carefully indexed, the authors have answered broad questions in detail — "How do I start a sales training program from scratch," — to specific problems including how to handle the executive having no potential for promotion.

turers went through the motions of an agreement, they almost at once vied with each other in seeing who could break the agreement the quickest and the most effectively.

This country as the leading world power needs, and must have, a strong, flexible textile industry. From the standpoint of national defense, our textile industry should probably be planned as a two-shift operation, so that in time of national emergency we can increase textile production approximately 50 per cent with a third shift. If third-shift operation is generally continued, and if the present cutthroat price situation continues for another year or so, a very large number of textile mills are going out of business, and it is doubtful if it would be good for the country to destroy a lot of these mills and leave the rest of them running three shifts, and maybe overtime, to take care of the demand, when the experience of two wars has so definitely proved the absolute need for a tremendous and immediate expansion of textile production when war occurs.

European manufacturers, since the beginning of the Industrial Age, have relied upon cartels to handle competitive problems such as those which are now plaguing us. The American people have been suspicious of business cartels, although they have permitted the organization of labor cartels which now possess much greater power than any business organization ever tried to accumulate.

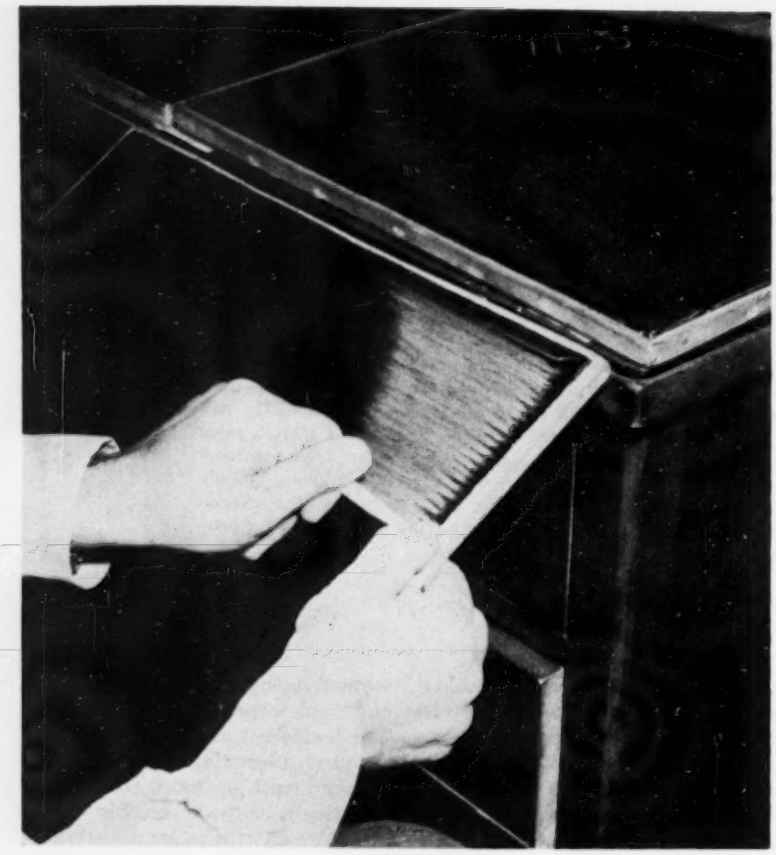
We believe that the industrial cartel is a bad thing, and a labor cartel worse, and we believe heartily in the competitive system, but we believe that it ought to operate on a reasonably sensible basis. We do not believe that an industry which persistently tries to force itself to operate at a loss is being operated on a sensible basis.

We certainly have some marginal cotton mills left, and there are a number of woolen and worsted mills which may be liquidated, but as far as the southern cotton textile industry is concerned, it is our belief that most plants are in reasonably good condition to meet any normal competition. If the operators of these plants could be persuaded to jointly and individually make a firm resolution never to sell anything at a loss, most of our present pressing problems would be substantially relieved.

Most businesses operate on such a basis, but a few industries, like textiles and coal, have never seemed to be able to control the cutthroat aspect of competition. The inefficient, marginal producer who has refused to equip his plant properly will be frozen out just as effectively with a sensible price structure as with an irrational one. It will take longer to close up this type of mill, but it must inevitably close up if it loses money at prices which would permit a first-class plant to make a small profit. There is not much sense in a price structure designed to freeze everybody out.

It looks very much as if we are headed for another dose of Government interference with the affairs of our industry. If we seem determined to strangle ourselves with willful over-production and ruinous under-pricing, a wave of bankruptcies will be followed by an inevitable appeal to the Government to step in and save us.

The Government has stepped into too many things already, and is now responsible for entirely too many things which it is not a proper function of the Government to manage, but if we can't get our own house put in order, we will see the Government trying to do something about it, and when the Government has to do enough of this sort of thing, you automatically have a totalitarian state.



Know what the stock can do. A sample from each lot of worsted top goes to the office of W. J. Cabana, plant manager, who wing draws it for a fiber array. He determines the characteristics of the lot, nepping tendency, strength, spinning limitations, and how the lot will blend with such synthetics as Orlon, nylon, or Dacron. Manufacturing specifications, number of doublings, machine settings, etc., can be planned.

Staff Prepared
EXCLUSIVE

Quality
before quantity

—The motto at Talladega, Ala., plant of Bachmann-Uxbridge Worsted Corporation

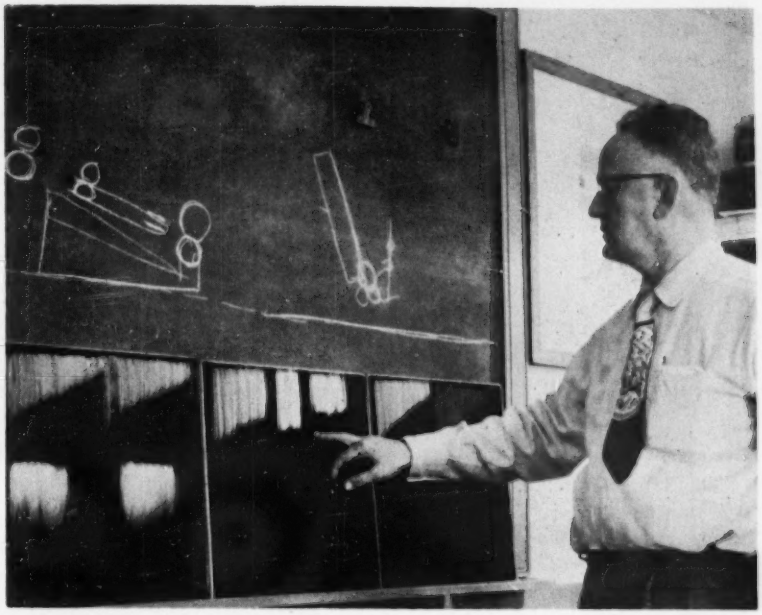
WOOL top and synthetic fibers reach the Talladega, Ala., plant of Bachmann-Uxbridge Worsted Corporation in cartons and bales. From that time on the stock is under surveillance for quality.

Even though this plant has a quality control department and laboratory for special and routine process-by-process checking, so much emphasis is placed on quality that everyone in the mill, from manager to operative, is quality conscious.

The photographs in this story do not follow the actual "flow" of quality control as exercised by the quality control department, for that is a story in itself, but they do depict the emphasis and highlights of quality control down the line.

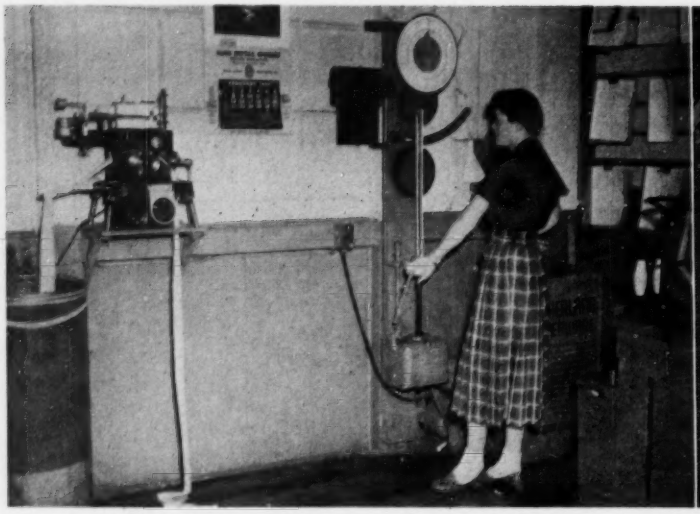
Other photographs show mechanical aids that are helpful in keeping quality at the top.

Synthetic fibers to be blended and spun also take a fiber array. They may be purchased in several lengths and blended to give an array similar to the wool with which they will later be blended. The numbered fiber array boards remain in the manager's office until the lot has been processed, serving permanently as the first record in the quality control program. ➡



Another sample of top goes to the laboratory where it is inspected on a mill-made through-light machine for evenness, neps, vegetable matter, bad combing and other defects that may affect processing. Departmental supervisors may visit lab to become acquainted with the lot to be processed.

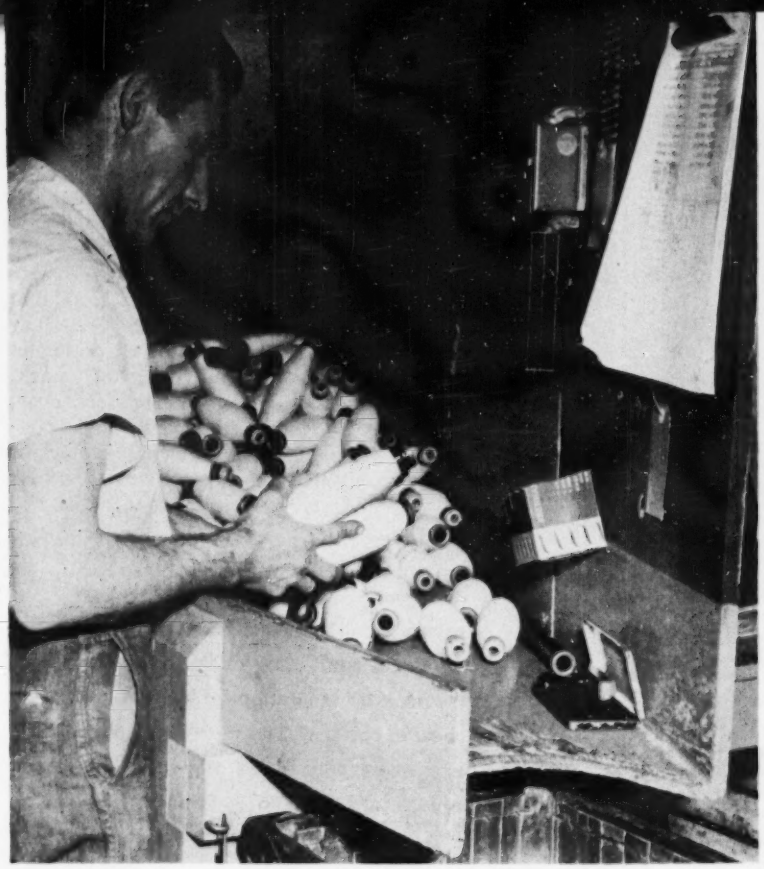
During inspection, the laboratory technician removes neps and other defects to form a sample board which is compared with other lots for standard, the base being imperfections per pound of sliver tested. This board goes to manager's office for evaluation along with the wing draw to determine manufacturing procedure and is also available to department supervisors so they may anticipate processing difficulties. ⬇

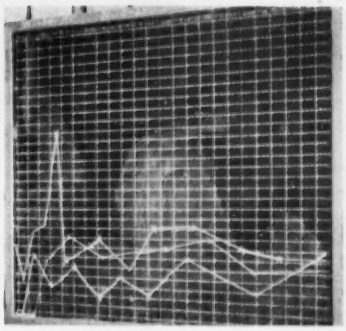


The lab technician with authority to stop production. She carries out standard sliver evenness and yarn breaking strength tests, keeping a record of all findings and comparing the results with the standard for the mill.

When the lab technician discovers substandard work in process she makes out a red "flag" card, places it on the machine, and stops the machine. That machine does not run again until it has been fixed and has received the okeh of the departmental supervisor. Here the overseer checks the machine, finds that it is now in good running order, permitting it to be started again.

"How is the work running?" Each spinner maintains her own end-down report, posting it several times a day. The report is available to the quality control department, overseer, superintendent, and manager, serving as a continuous check on the process.



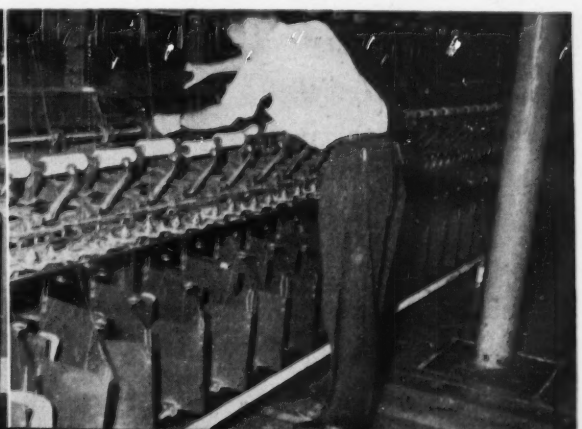


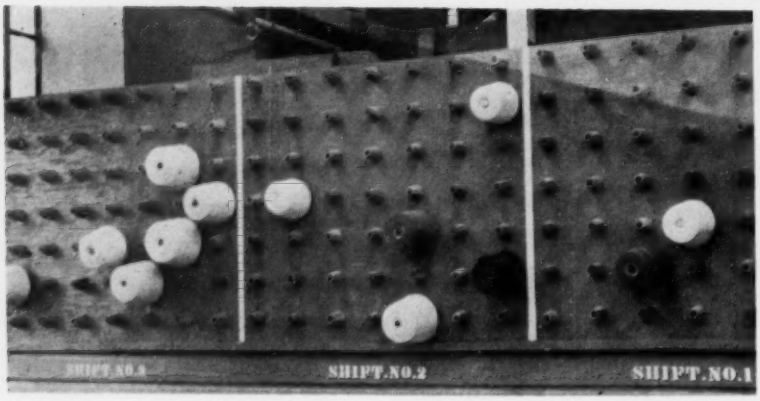
Every bobbin of yarn is inspected. Doff box is lifted into position by electric hoist, and yarn is poured onto waist-high table for ease of operation. Inspector checks doff ticket for lot number and code blend, frame number and count, mark, doffer's initials, spinner's initials, doff time; and bobbins for mark and color, type bobbin and color, build of package, direction of twist, double spins, singles and kinks, slubs and cockles, soft noses, short doff and why, oil streaks, and stain variation. He stamps each doff ticket to indicate that yarn has been inspected.

Bad bobbins of yarn are labeled and placed in pigeon holes for supervisor. He brings defects to attention of responsible operative.

Defective yarn, by shifts, is shown by curves on blackboard in spinning room. Competition between shifts is high.

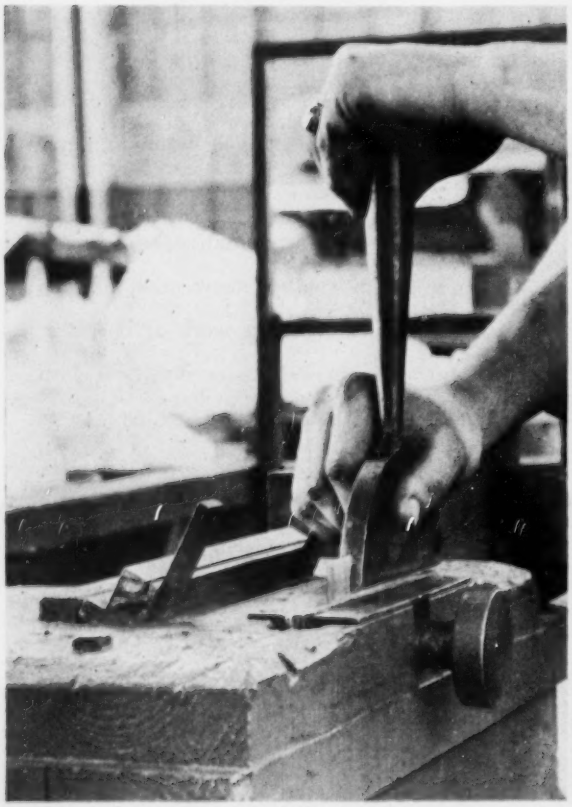
Quality first — production next. Machines are inspected every day for quality performance by superintendent of maintenance or a representative of the quality control department. If the machine is not up to standard or if quality work is not being made, the machine is stopped off until it is fixed. Although the departmental supervisors are production minded, quality comes first, and no machine making substandard work is operated. (On roving frame, note rail fastened to floor with special sliding stand attached so that rolls may be inspected easily.)



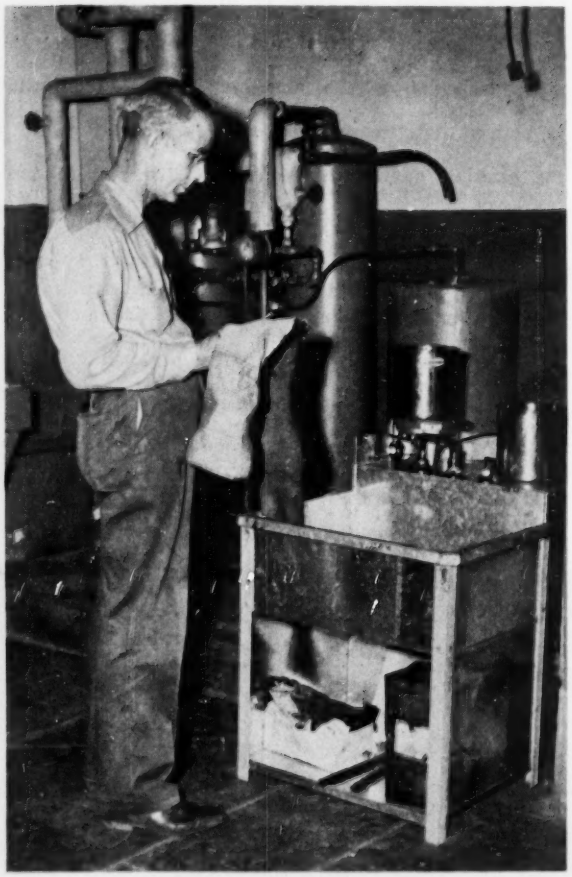


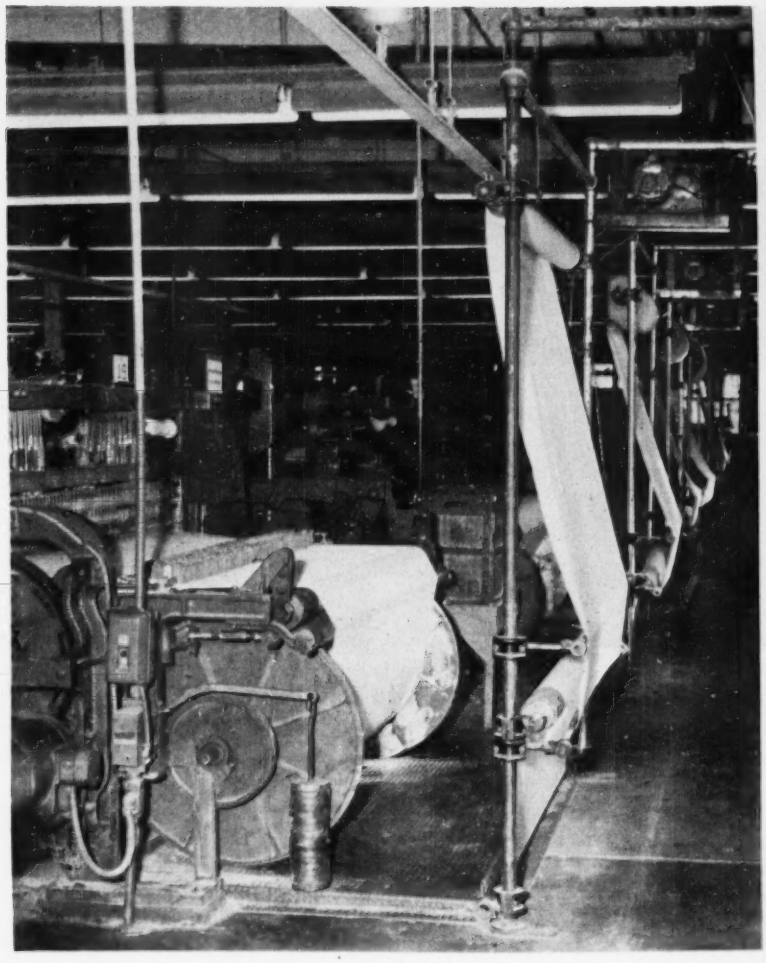
Random packages are rewound to check on quality from the winding and other departments, and the wound packages are also inspected in a well-lighted room. Any imperfections are placed on a board for the quality control man to inspect further. Note that imperfect packages are posted by shift. Yarn inspectors check for lot number; color, cone, and mark; cone base and nose; soft nose; ridge at base; cuts and snags; variation in color of cone; streaky or oily package; size of cone; operator number on yarn; etc.

By viewing pin-drafter fallers held in straight-edge vise and above light (under bench), crooked bars and pins may be straightened with mill-made tool prior to grinding.



Checking on the loom pattern. In the grey state, fabrics containing more than one type of fiber with intricate designs are difficult to check for weave pattern. Therefore, as soon as the pattern is thought to be correct at the loom, a piece is torn off and is fiber identification-dyed in an adjacent room; the pattern is then checked easily.

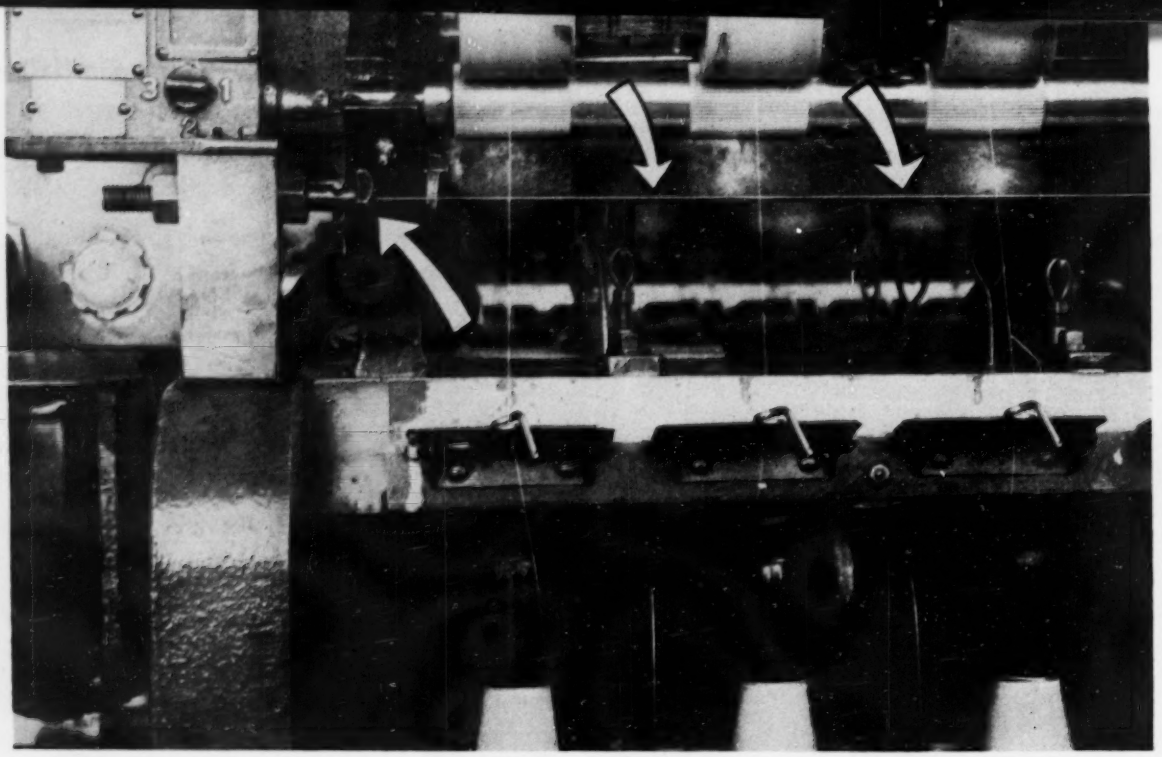




↑ Through-light inspection system (perch) and back-of-loom take-up in weaving permits weaver to inspect more of cloth, instead of only cloth between fell and sandroll, and gives larger roll of fabric. Perches are especially valuable for styles in which imperfections are difficult to locate on loom. Cloth passes over sandroll in conventional manner, goes over a false cloth roll on front of loom, passes below rocker shaft under protective metal cover, to perch. →

Standing on false floor or deck, ↑ weaver inspects intricate fabric. Through-light inspection shows up defects quicker.

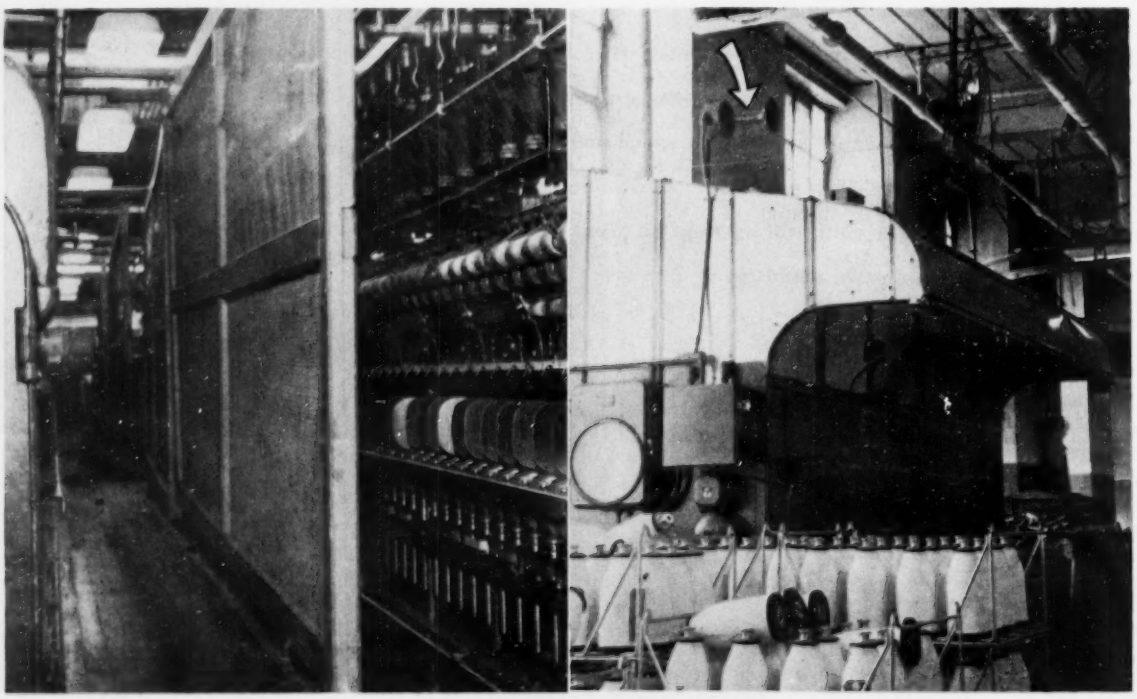
For marking and recording defects prior to burling, and so that the fabric may be minutely inspected by production men after it comes off the loom, this mill-made through-light and under-light inspection machine was built. A punch counter permits a quick tally of defects. Note kickboard for starting and stopping machine, leaving both hands of operative free.

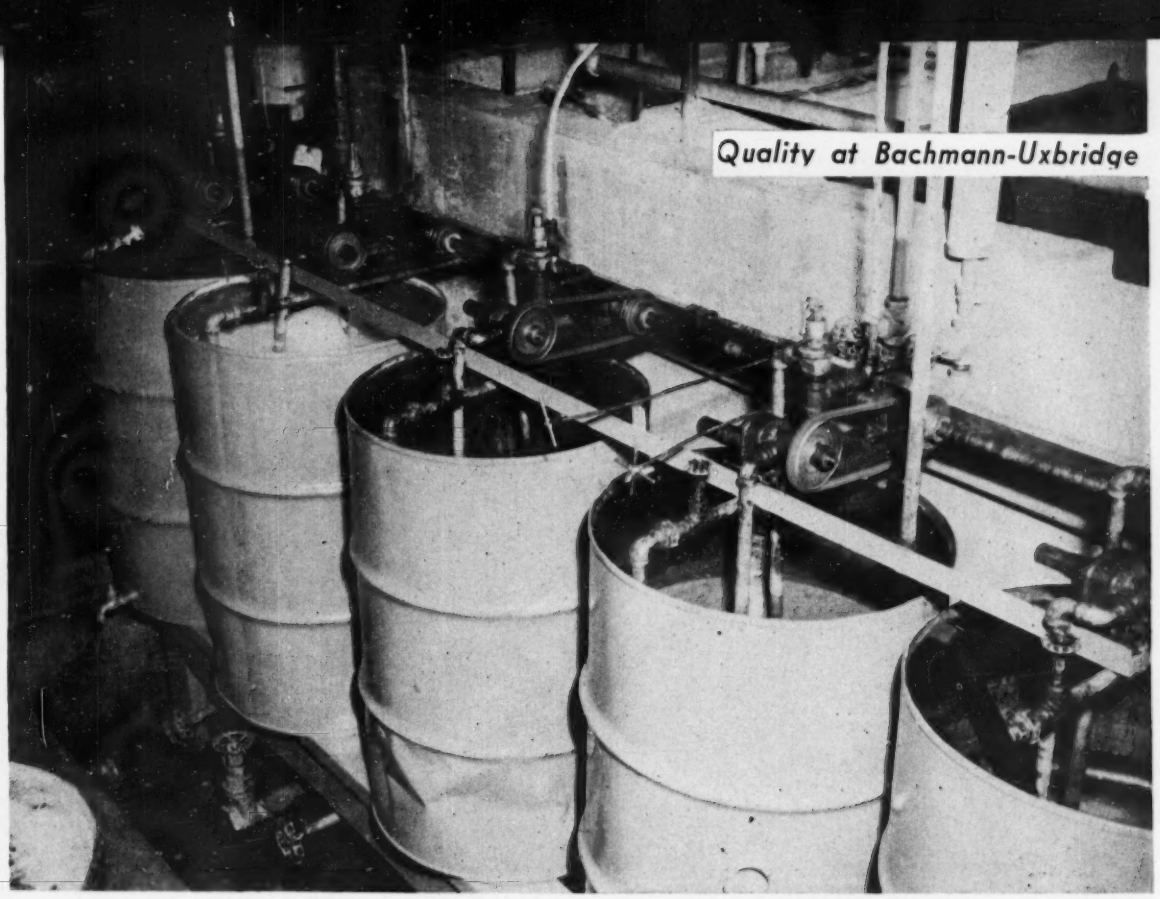


Double spinning preventer. Piano wire two inches below nip of front rolls prevents broken end from crossing to adjacent spindle. While spinning, the yarn barely touches wire. Tension on wire is controlled by adjusting length of retaining bolt.

Wool on one frame and synthetics or blends adjacent. To contaminate one with the other would be costly. This wire screen prevents contamination from fly, yet permits circulation for humidification.

This horn on the conditioning oven signals the end of the conditioning cycle. It will blow loud enough and is disturbing enough so that someone opens oven door to break the cycle.

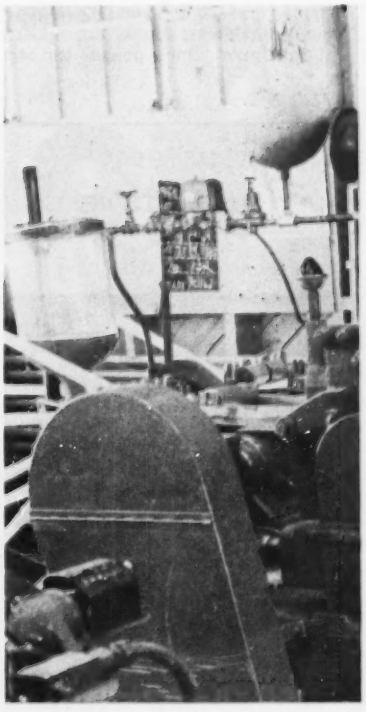




Save steps, mixing, and mess. Drums of tint in air-compressor room under continuous agitation, are equipped with individual pumps to maintain a continuous supply of emulsion to processing department on second floor.

No mixing of tint when needed. Pin drafter operative simply draws supply in container. Different tints are used for wool and synthetics.

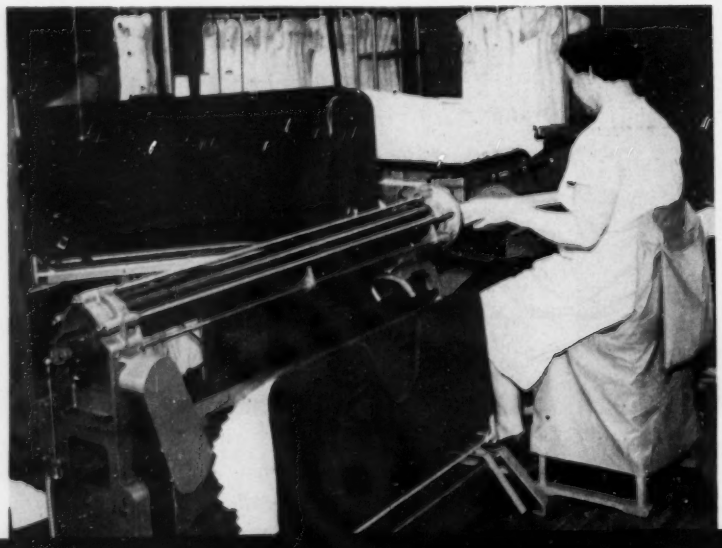
A few steps and the tint is on the pin drafter. This is the Bachmann-Uxbridge patented spray system of tint application.



INSPECTION FORM is expanded by pressing control under left foot after operator has pulled stocking over retracted form. Right foot operates "Good Work" switch which automatically retracts the form and actuates the stripper which pushes the stocking off the form.

Hosiery Inspection

DOUBLE



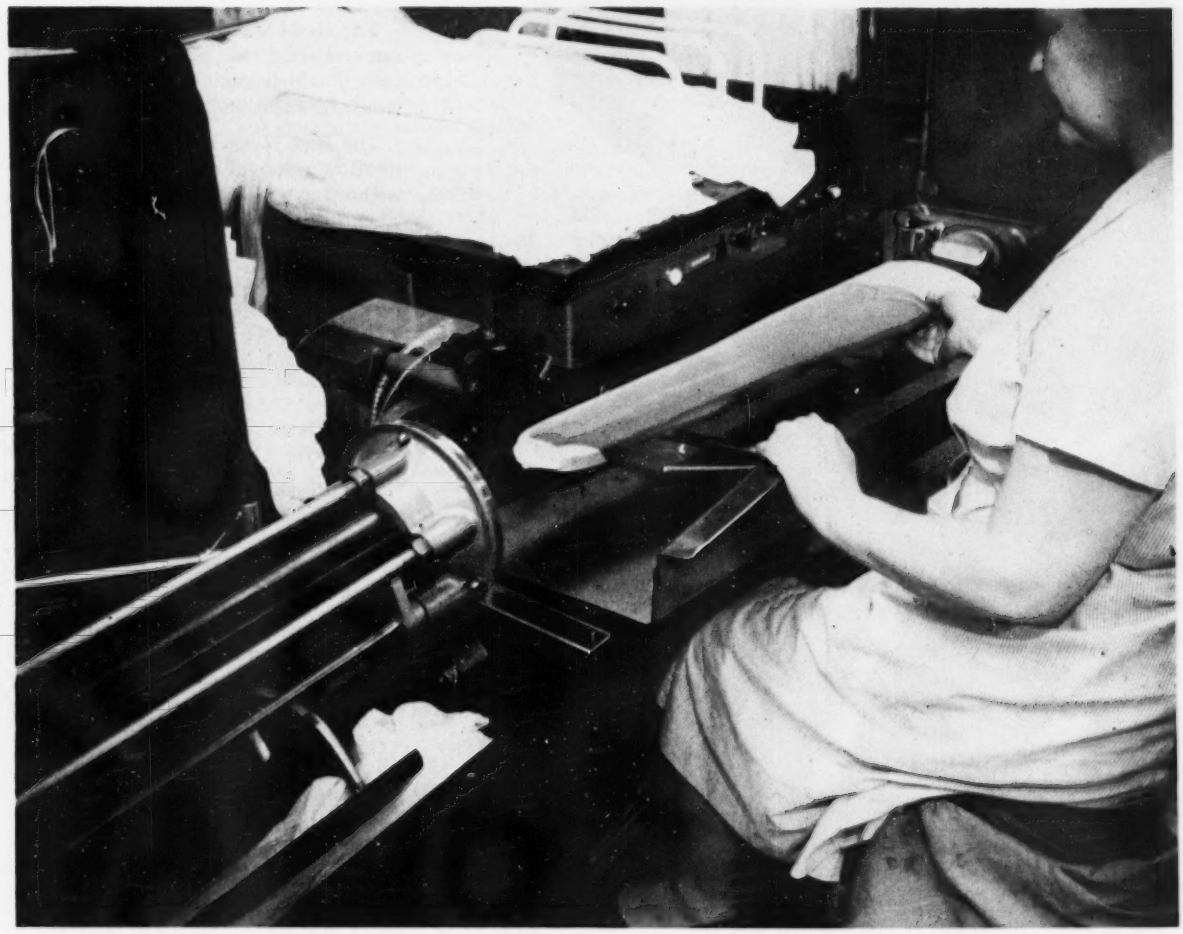
Staff Prepared

EXCLUSIVE

PILOT Full-Fashioned Hosiery Mills, Inc., Valdese, N. C., installed a Sotco automatic inspection machine to increase production in the hosiery inspection department, and the machine dou-

←

PRODUCTION OF ABOUT 200 DOZENS PER EIGHT HOURS was attained without rushing the operator too much. These production figures compare to 100 dozens per eight hours on manual inspection forms by a fast and experienced operator.



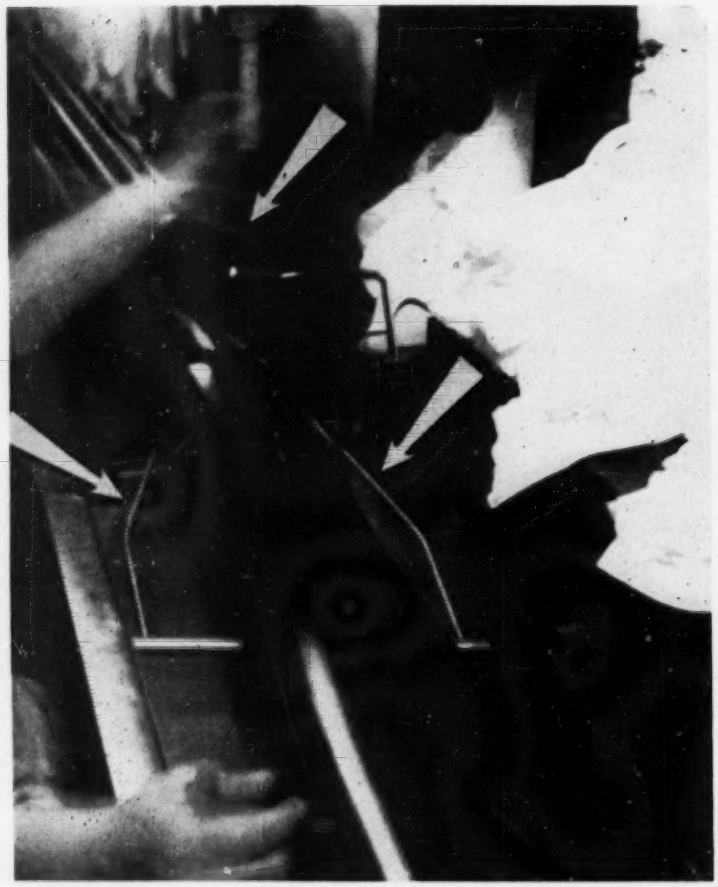
STOCKING STRIPPER is under inspection form and is rubber covered. Expansion form must be in specific position before stripper will operate to remove stocking. Note separators which accommodate different types of bad work on table top.

PRODUCTION

bled the operator's production. This machine has been in operation long enough to indicate that increased production and lower inspection costs will amortize the investment in approximately one year, according to officials at Pilot.

The first week the machine was

CONTROL BUTTONS are located on front of table which houses the operating mechanisms of the machine. Green light flashes to indicate a pair has been counted; light flashes for every other (alternate) stocking. This warns the operator if there is an odd stocking in the tray when she finishes a lot.



COMPRESSED AIR OUTLETS are located at the end of the inspection form and at the end of the stacking tube (see arrows). Toe of stocking is held by clamp at end of form while compressed air turns the stocking and blows it into the stacking tube. Counter operates during this cycle.

in operation, adjustments had to be made, and although it was new to the operator, production of 80-90 dozens per eight hours was obtained.

The second week production jumped to 100-110 dozens; the third week to 120-130 dozens; the fourth week, 140-155 dozens; and production leveled off at about 200 dozens without rushing the operator too much. These production figures compare to 100 dozens per eight hours on manual inspection forms by a fast and experienced operator.

An operator has to think to operate this machine; therefore, in some instances it may be necessary to be more selective in assigning an inspector to this machine if all of the inspectors have been accustomed to inspecting wholly on manual boards.

Description. The machine is electrically operated and includes a table 42″ x 54″ which houses the operating mechanisms (see accompanying illustrations). The expanding inspection form is located in front of the table, and the stacking tube is located on the operator's left side.

Any bad work encountered is stacked in appropriate slots—on top of the table in this instance. This installation is equipped with an automatic counter which counts the pairs of good work only.

A control panel on the front of the machine includes buttons for Start, Stop, Good Work, Expand, Reset, Up, Down, and Bad Work. The counter indicator is also on the control panel.

The Start and Stop buttons control the supply of current going to the operating mechanisms of the machine.

The Good Work button is on the same circuit as a foot-operated switch which removes good work from the form and counts it.

The Bad Work button is pushed to allow removal of a bad stocking without counting it and without stacking it with the good work.

The Expand button is a duplicate of a foot-operated control which expands the inspection form.

The Up switch elevates the work trays.

The Down switch lowers the work trays.

The Reset switch allows operation of the Up and Down switches after the work trays have reached either end of the Up or Down cycles.

Compressed air outlets are located at the end of the inspection form and at the end of the stacking tube.

Operation. Individual stockings are removed from the work tray and pulled over the retracted expansion form for inspection. The operator then presses the expansion control with her left foot.

The stocking stripper is located under the inspection form and is rubber covered. After the operator has inspected the stocking, the expansion form has to be in an exact position before the stripper removes the stocking. The operator presses the foot-operated Good Work switch, and this automatically retracts the form, and actuates the stripper which pushes the stocking off the form.

The toe of the stocking is held by a clamp on the form while compressed air turns the stocking and blows it into the stacking tube. The counter operates during this cycle, and the stacker pushes the stocking into a work tray located in a frame under the stacking tube.

When bad work is encountered, the operator pushes the Bad Work button which automatically retracts the expansion form, strips the stocking and turns it, blows it into the tube, but does not drop the stocking into the tray. Instead, the operator removes this stocking and places it on top of the table in an

Fiber Requirements Seen Totalling 7 Billion Pounds by 1960

The effects of growing population and changing age patterns on clothing markets of the future, and the outlook for textile raw material requirements, are subjects of a brochure just released by The Wool Bureau.

Entitled "What's Ahead for Clothing Markets?" the brochure is based upon a talk by Ruth Jackendoff, the Bureau's director of economics and statistics, at the annual convention of the National Association of Wool Manufacturers. It is being distributed as a service to wool mills, clothing manufacturers, retailers and other trade groups, as well as educators.

The Bureau bases its studies on population projections of the Census from 1950 to the following two decades, 1960 and 1970.

Total fiber requirements in 1960, assuming the 1950 per capita rate, will be over seven billion pounds, it is estimated, or between 900 million to a little over one billion pounds greater than those of 1950. By 1970, the requirements will have grown to around eight billion pounds, or between 1,500 million to 2,125 million pounds higher than those of 1950. The highest potential requirements on the basis of this calculation will require 8,251 million pounds of fibers.

"How these fiber requirements will be met in terms of major fiber resources, including cotton, wool, and man-made fibers, is conjectural today," the Bureau states. "American consumers, more than any others in the world, are testing a confusing variety of new synthetic fibers and blends against standards of use and wear established by natural fibers. They test these fibers in terms of finished fabrics and garments under conditions of normal, everyday wear and tear which are difficult for their producers to duplicate in laboratory tests.

"In the coming years some of these new fibers will survive where their price or performance for special end uses meet consumer standards of value. At the same time the competition of these new fibers has alerted the traditional fibers to the need for developing new finishes, weaves, textures, and weights to stimulate consumer interest in clothing and textiles.

"The textile markets of the future are a challenge to the business acumen," the Bureau says, "creative talent and scientific know-how of the textile industry, from the fiber producers through the manufacturers of the finished products."

Overqualified Employee—Hazard to Employer and Self

The overqualified operative is a hazard, not only to the company which employs him, but also to his own mental health, reports Industrial Psychology, Inc., a national psychological research organization. "The overqualified employee has more psychological potential than the job can absorb. Having too much ability, the job challenges him only for a limited amount of time. Then it becomes routine, repetitive, boring, lacking in stimulation. The end result — the overqualified employee becomes as inefficient, and even more dissatisfied, troublesome and annoying, than the underqualified worker."

Studies show that 1 out of every 5 employees presently employed in business and industry, is overqualified. The seriousness of their cases ranges the gamut from the employee who has ceased to care, to the employee who shows overt neurotic symptons due to his job frustrations. Few overqualified employees who have reached job saturation, are either efficient performers, or well-adjusted personally.

What can management do in this problem of overqualification? Industrial Psychology, Inc., points out two areas in which action can be taken:

(1) *Spot the overqualified employee.* The application blank and interview give some clues as to overqualification. The most accurate method for spotting the overqualified employee is psychological testing.

(2) *Handle the overqualified employee properly.* There is nothing wrong in placing an employee in a job for which he is overqualified, providing the situation is handled properly. If the employee is a long-term employee, he should be informed that this assignment is a definite part of his training process; and while the company realizes he has more ability than this job can absorb, he will not be left on the job indefinitely. (This statement should not be made to all employees, but only to those with bona fide qualifications for higher-level jobs.) In hiring temporary or part-time operatives, the overqualified person is often a very good risk, since he learns quickly and the assignment is over before he can become bored.

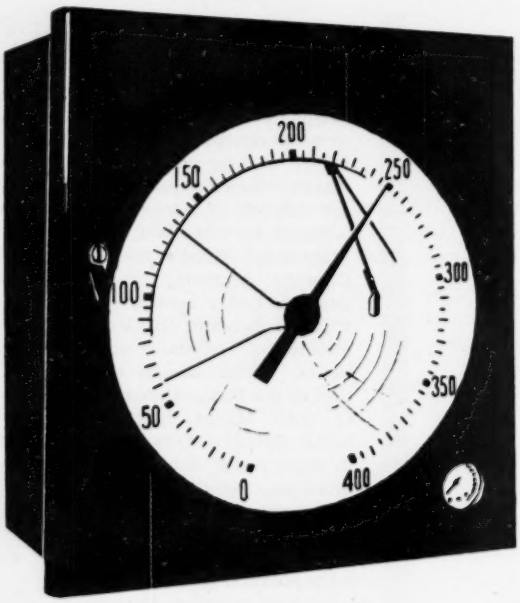
appropriate slot. The counter does not operate when the Bad Work button is pressed.

Advantages. More production at lower unit cost is possible on this machine because of the convenience and automatic features. Less floor space is required for a given amount of production.

There has been no maintenance to date, and a minimum amount of maintenance is expected as time goes on, according to management at this mill.

FOR FILAMENT SYNTHETICS —

Uniform Package Dyeing



ASSURED BY HIGH TEMPERATURES AND PROPER WINDING

Staff Report

EXCLUSIVE

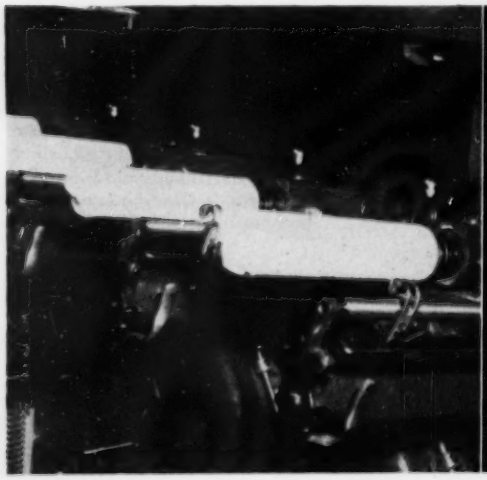
HIGH temperatures and properly wound packages—these are the keys to uniform, well-penetrated package dyeings of nylon, Orlon, Dacron, and Dynel filament yarns. The management of Ray-Ser Dyeing Co., Chattanooga, Tenn., reached this conclusion after experience with a wide range of yarns from 10 to 840 denier, for hosiery, outerwear, upholstery, laundry bags, woven fabrics, woolen fabric decorations, and other uses.

Ray-Ser dyes these newer synthetics on tubes in a Gaston County package dyeing machine at temperatures from 220 to 250 F, with several classes of dyestuffs.

Why High Temperature Dyeing? According to F. E. Cater, president of Ray-Ser, dyeing synthetics at high temperatures offers these advantages over dyeing at standard temperatures:

1. Better color value from dyestuffs. Smaller amounts of dye-

KNITTED SLEEVE is put on at the tube winder. Yarn is wound with the sleeve between the tube and the yarn, and then is pulled over the outside of the package. The sleeve is not removed until the yarn is backwound. Sleeves can be used one to four times, depending on the yarn.



stuffs yield full shades; for example, one acid dyestuff which is only about 80 per cent exhausted after one hour at 212 F is 100 per cent exhausted after only 20 minutes at 250 F.

2. Better penetration. At high temperatures the dyestuff molecules are able to penetrate the fiber more quickly and more thoroughly.

3. Better uniformity. High temperatures appear to eliminate differences in molecular orientation along the length of the fiber, and the yarn therefore dyes more evenly. Probably what happens is that the filament is permitted to relax and release the internal stresses set up during the initial stretching and drawing of the fiber. This factor operates in addition to the uniformity increase caused by better penetration.

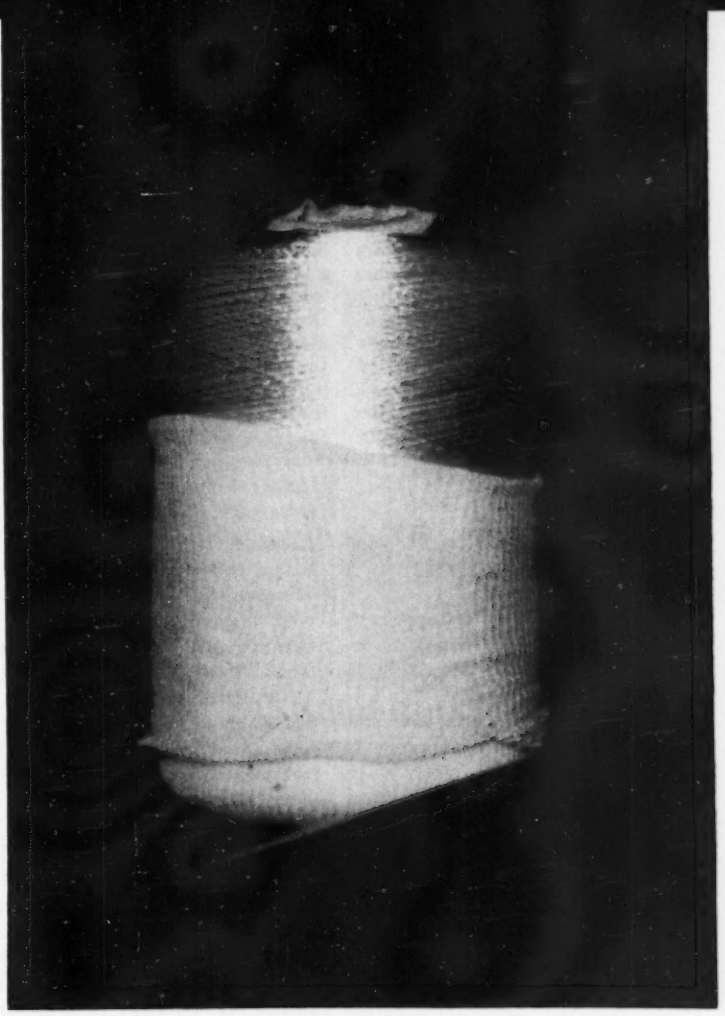
4. Better fastness. Fastness to washing is usually improved by dyeing under pressure at high temperatures, as are fastness to preboarding and to fulling. Ray-Ser dyes nylon for laundry bags capable of standing a 30-minute boil in 100 per cent soap plus 2 per cent soda ash. A wider selection of dyes of good fastness is available, since some dyes whose fastness is poor under standard procedures have good fastness when dyed at high temperatures.

5. No expensive carrier is needed.

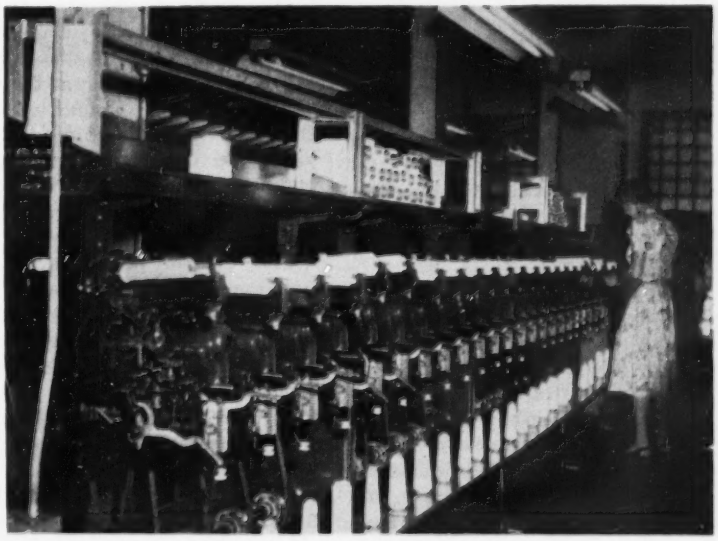
Package Dyeing Is A "Plus." High temperature dyeing of synthetic yarns requires package dyeing to obtain the necessary pressure. However, package dyeing offers advantages of its own, apart from the improved dyeing obtainable at high temperatures.

Package dyeing makes possible a better quality yarn than is usually produced by skein dyeing. For example, Ray-Ser has found that on an average lot of 40- or 50-denier nylon dyed in skeins, there are 6 to 12 knots per pound in addition to the knots normally expected in tying one skein to the next. In other words, nylon dyed in quarter-pound skeins will have 3 knots per pound plus 6 to 12 breakage knots.

At Ray-Ser, on package dyed nylon of the same denier, there are



UNIFORM PACKAGE DYEING requires that dye tubes be uniformly wound, of correct density, with no variation from package to package. Soft packages permit channeling, hard packages are difficult to penetrate. When a new yarn is run for the first time, a test package should be wound and dyed to determine correct package density and winding conditions. Knitted sleeve on tube above protects yarn throughout dyeing operation. Sleeve is most important for rayon, but waste with synthetics is reduced sufficiently to justify the cost. Sleeves have practically eliminated white spots at Ray-Ser.



Soot Blowing with Compressed Air Cuts Power Plant Operating Costs

The use of compressed air for soot blowing in high pressure as well as low pressure boilers is becoming wide-spread due to the savings in operating costs, Worthington Corp. reports. Water savings, in pounds per blow, plus the use of low pressure, low temperature piping — with no piping insulation required — aid materially in offsetting the greater initial cost of compressor installation. Savings on feed water make-up and reduced blower maintenance are also influential in the overall cost picture. In many high pressure applications the use of steam for soot blowing reduces steam pressure to the extent of becoming wasteful.

many one-pound cones of yarn with no knots. The average is 2 knots or less per pound.

From a cost standpoint, package dyeing eliminates the skein-to-spool operation, a considerable item on low-denier yarns. In addition, package dyeing does not tend to tangle yarn or to disarrange it as is the case in the practically parallel winding of yarn in skein form.

"Zero-Twist" Yarn. Ray-Ser has pioneered in the successful high temperature dyeing of zero-twist yarns (which actually have ½ to ¾ tpi). The advantages of dyeing without twist are that the user can get better fabric coverage and save twisting costs where twist is unnecessary for the end use.

Zero-twist yarn is received by Ray-Ser on pirns; it is given a special treatment in preparation for dyeing, and is wound on tubes by especially developed and controlled methods.

Package density is more critical than for twisted yarn; it should be lower, therefore the tension required in winding is less.

Not all yarn dyed by Ray-Ser is zero-twist. Many uses for the yarns require twist, which Ray-Ser can insert, and some yarn is received from throwsters.

Winding the Dye Package. A commission dyer such as Ray-Ser, dyeing a wide variety of fibers in a wide range of sizes, must exercise close control of winding. Each denier of each fiber has its own optimum package density.

Packages must be uniformly wound, of the correct density, and there must be no variation from package to package. Packages which are too soft will permit "channeling," i.e., the dye liquor will take the path of least resistance and cause uneven dyeing. If too hard, the package will be difficult to penetrate or may even not be penetrable at all.

In addition, a package that is too soft represents an economic loss, since there is less yarn on the package.

Ray-Ser winds a softer package for rayon than for other fibers, since its swelling is considerably more.

Before a new yarn is dyed for the first time at Ray-Ser, a one-pound test package is dyed to determine correct package density and winding conditions.

Use a Knitted Sleeve. Ray-Ser's management is emphatic that rayon yarn must be covered throughout the dyeing operation with a knitted sleeve, and that on synthetics waste is reduced more than the cost of the sleeve, which they prefer over paper.

The sleeve is put on at the tube winder, the yarn wound with the sleeve between the tube and the yarn, and then the sleeve pulled over the outside of the package. The sleeve is not removed until the yarn is backwound.

The sleeve performs several functions. First, of course, it protects the yarn during dyeing and during transit from one department to another. It provides a cushion between the tube and the yarn; the capillary action of the sleeve draws dye liquor to the places where the yarn is near the tube but where there are no perforations.

The sleeve also acts as a filter to keep out particles of foreign matter, and reduces velocity and distributes the flow of the dye liquor.

Ray-Ser finds that sleeves can be used one to four times, depending on the yarn. With fine yarns, sleeves can only be used once.

By using sleeves, Ray-Ser has practically eliminated white spots, and is able to return nearly 100 per cent of yarn to the customer.

Dyestuffs Used. Mr. Cater cautions that dyestuffs must be carefully selected for high temperature operations. At the temperatures of 220 to 250 F used, some dyes will decompose, some will sublime, and others will change color, e.g., some blues will redden.

Ray-Ser has found that selected acid dyes and after-treated acid dyes give the best all-around fastness on synthetics in dyeing at high temperatures. After-treatments include chrome and acid, and tannin and tartar emetic.

Naphthol dyes are used for some shades on synthetics. The naphthol and base are applied simultaneously at 175 F, diazotized, and scoured. These dyeings usually have good wet fastness but poor light fastness.

Acetate dyes generally do not have the light fastness of acid dyes, but are used by Ray-Ser in some applications where fastness to light is not of paramount importance.

Ray-Ser does no high temperature package dyeing of the newer synthetics with vat dyes. Rayon is not packaged dyed with vats at all, but is skein dyed. Excessive swelling in caustic soda makes package dyeing of rayon unsatisfactory.

Best results with all classes of dyestuffs are obtained when each dye is used at optimum temperature, which is fairly critical. Ray Ser uses temperatures of 220, 225, 240, and 250 F. Typical dyes applied best at 225 F are:

Bordeaux BV

Nydye Navy Blue M

Application at 250 F is best for:

Alizarine Cyanine Navy Blue 5RA

Alizarine Cyanine Green GHN

Supranol Red PRX-CF

Cibalan Gray BL.

the diversified weaving mill can

REDUCE QUILLER OVER-RUNS

By Noel Martini
EXCLUSIVE

A HIDDEN waste source that is costly to the diversified weaving mill can often be traced to the quilling department. In those mills producing a large variety of fabrics, particularly in a yarn dyed operation, over-runs in quilling can build dead yarn inventories with the apparent speed of lightning and at the same time tie up quills. Therefore, some type of control system for the quilling department is essential.

Any control system must be arrived at by trial and error to satisfy the individual mill requirements, and there is no quick road to installing the system; for by the very variable nature of the diversified weaving mill, any method applied to it must also be somewhat involved. However, these comments may prove helpful as the basis for starting a control system.

Setting the Stage: Whether quill boards are dispensed from the quilling department directly to the weaver or are placed on the loom by a member of the quilling department, a quill board rack is most useful for the systematic build-up of filling yarn ahead of its actual use.

A suggested construction plan for such a rack is shown in Fig. 1. A rack of this type can accommodate many quill boards when both sides are used. Loom numbers may be placed in numerical order or any convenient arrangement. The quill board rack is the physical point of control; the quilling department supervisor should be made responsible for the orderly maintenance of the boards on the rack, and employees should keep hands off unless authorized.

Setting Up Yarn Requirements. In order to avoid over-quilling, a handy, easily read reference should be available in the quilling department showing pounds of filling yarn required per yardage range for the mill style. This information can readily be drawn from mill cost calculations. A suggested table to prepare is shown in Fig. 2. Mounting the table in a celluloid jacket so that both sides can be referred to serves handily.

Determining Quills per Unit of Weight. If the mill is blessed with a variety of quill sizes, a good

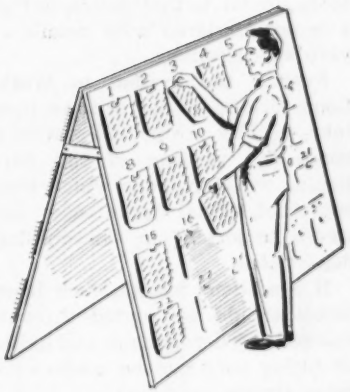


FIG. 1. A rack for quill boards (by loom number) is the physical point of control. Unauthorized hands "keep off."

POUNDS PER YARD

			Yards											
Style	Box	Yarn	1	2	3	4	5	6	7	8	9	10	20	30
4454T	1	300 D. Ray.	.02	.04	.06	.08	.10	.12	.14	.16	.18	.20	.40	.60
	2	150 D. Ray.	.23	.46	.69	.92	1.15	1.38	1.61	1.84	2.07	2.30	4.60	6.90
	3	300 D. Ray.	.02	.04	.06	.08	.10	.12	.14	.16	.18	.20	.40	.60

FIG. 2. Determine the pounds of filling yarn required per yardage range for the styles in your mill, and make a handy reference table. Information can come from the cost sheet.

NUMBER OF QUILLS

Pounds	Rayon or Acetate				Dacron				Cotton			
Quill Type	1	2	3	4	1	2	3	4	1	2	3	4
.10	3	4	3	2	2	3	3	2	3	5	4	2
.20	4	8	6	4	4	6	5	3	5	9	7	4
.30	7	11	9	6	6	9	8	5	8	13	10	6
.40	10	15	12	8	8	12	10	6	10	17	14	8
.50	12	18	15	10	9	15	12	8	13	21	17	10
.60	14	22	18	12	11	18	15	9	15	25	20	12
.70	17	26	21	13	13	21	17	11	18	29	24	14
.80	19	29	24	15	15	24	20	12	20	33	27	16
.90	21	33	27	17	17	27	22	14	23	37	30	18
1.00	23	36	30	19	18	29	24	15	25	41	33	20

FIG. 3. Should mill have several types of quills, calculate the average weight per type quill for various yarns, fibers, or colors. Using the handy tables in this and Fig. 2, the number of quills needed can be calculated and wound by using weaving order as the basis.

average weight per quill type must be determined for each yarn contained thereon by fiber or color. A standard yarn reel removes the yarn from quills for weighing purposes.

The count and denier range of yarns in common mill use should be studied to determine an average weight of each fiber type per quill. However, count and size variations may be so insignificant within any one fiber class that a table similar to that shown in Fig. 3 is not cluttered with details of yarn specifications.

Putting the System to Work. Loom tickets, whatever form they take, usually are provided with a space for yardage of the particular weaving order which they represent. This figure now becomes important in the quilling department.

If conditions permit, each loom ticket should be routed through the quilling department, and quills of filling yarn can be made with these tickets as orders.

By referring to the table illustrated in Fig. 2, the poundage of each yarn required for the order is quickly determined, after which the number of quills needed to make up the poundage is taken from information in Fig. 3.

With some practice the foreman or overseer will learn the more commonly used requirements and will always have a positive method of preparing filling quills, regardless of how many colors, yarn sizes, or yardages are required.

Text on Jacquards by T.I. Contributor

"Jacquards" is the title of a new text recently added to the courses on loom fixing, weaving, and designing given by the International Correspondence Schools, Scranton, Pa. The book was written especially for home study by Thomas Hargreaves, who is general superintendent of Caldwell Linen Mills, Ltd., Iroquois, Ontario, and a frequent contributor to TEXTILE INDUSTRIES.

Production Curtailment Instead of Price

Indicative of a strengthened supply situation and of potential early improvement in textile values, production of cotton goods in the first half of 1954 will fall some 800 million square yards below first half 1953, W. Ray Bell, president of The Association of Cotton Textile Merchants of New York, stated in the organization's 23rd annual market survey.

The recession phase of the textile cycle, which began nearly a year ago, has about run its course and "will soon give way to more constructive and healthy markets," he stated. "Evidence is growing that price cutting has been abandoned as a typical industry policy in favor of production curtailment. This is characteristic of the final phases of textile recessions."

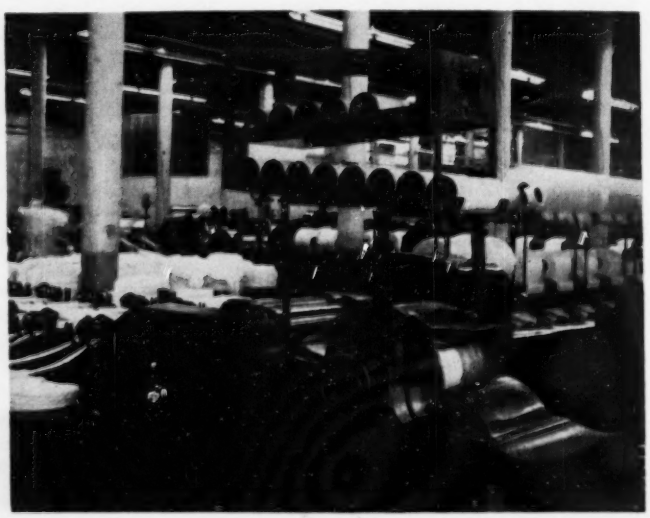
The adjustment of production, which in the four months January through April has been marked by a 14 per cent drop in raw cotton consumption and spindle hours operated, will in all likelihood continue into the summer months and vacation period, Mr. Bell noted. "The natural outcome is that mill surpluses will no longer be available for ready shipment and the chances of improvement in textile values will be greatly enhanced." Already, he added, some areas of the market have shown the effects of changing supply conditions with unprofitable business turned down and fractional price gains recorded.

Mr. Bell foresaw a return of confidence in forward transactions after the long period of hand-to-mouth buying dating from late last summer, and a better appreciation of the value of trade inventories after a period of inventory retrenchment. Referring to the third of the postwar textile recessions, he noted that production had reached 11.3 billion square yards in 1953 (see accompanying chart), second only of postwar years to 1951, with intensive operations tapering from peaks early in the year. The sudden change in buyer attitudes toward forward buying and inventory in the early fall of 1953 brought with it constantly reduced price levels in the industry, a substantial rise in idle spindles, and eventually the more drastic curtailment of operations featured thus far in 1954.

With military purchasing re-

Improvised Lap Pin Magazine for Sliver Lappers Saves Time

A three-story lap pin tumbler type magazine mounted on a sliver lapper saves time in one southern mill. The magazine feeds lap pins automatically as they are used, and the operator



Cutting Characteristic of Recession End — Ray Bell

duced and a lesser export offtake, cotton textiles adjusted for import and export were made available in 1953 for civilian use in this country in amounts exceeding the largest quantity ever in any calendar year, he stated. Even so, this rise was in great measure offset by the increase in population, and as a consequence the amount available per capita of population stood at 67.3 square yards, or only fractionally above the 67.0 square yards of 1939. Material advances in employment, earnings, and disposable income in the meantime indicate a well maintained public consumption of apparel and household goods.

TEN YEARS OF COTTON TEXTILES

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
EQUIPMENT											
COTTON SYSTEM SPINDLES											
Spindles in place at beginning of year	23,342,922	23,105,942	23,787,000*	23,928,300*	23,727,000*	23,751,000*	23,541,000*	23,149,000*	23,152,000*	23,070,000*	22,940,000*
Increase or decrease from preceding year	−414,922	−236,980	681,058	141,000	−201,000	24,000	−410,000	−192,000	3,000	−82,000	−130,000
New installation, additions and replacements	82,736	323,688	323,036	416,555	607,358	858,623	649,780	771,065	295,642	267,328	
OPERATION											
CONSUMING COTTON ONLY											
Spindles active at any time during year ending July 31st	23,018,828	22,674,853	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Average number of active spindles based on twelve monthly reports	22,332,080	22,018,529	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Average number of spindles active on last working day of month	N.A.	N.A.	21,475,000	21,588,000	21,391,000	20,063,000	20,449,000	20,632,000	19,924,000	20,023,000	
CONSUMING FIBERS OTHER THAN COTTON, OR BLENDS											
Average number of spindles active on last working day of month	N.A.	N.A.	1,172,000	1,198,000	1,337,000	1,174,000	1,295,000	1,261,000	1,337,000	1,323,000	
ALL COTTON SYSTEM OPERATION											
Spindles idle during year ending July 31st	324,094	431,090	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Average number of spindles idle on last working day of month	N.A.	N.A.	1,212,000	1,066,000	1,050,000	2,334,000	1,372,000	1,264,000	1,887,000	1,572,000	
Spindle hours run:											
On 100% cotton	114,984,480,000	107,354,187,000	109,474,292,000	116,040,000,000	115,846,000,000	97,874,000,000	117,753,000,000	118,285,000,000	109,328,000,000	118,545,000,000	
On other fibers, blends	N.A.	N.A.	5,875,000,000	6,346,000,000	7,452,000,000	5,816,000,000	7,502,000,000	7,563,000,000	7,563,000,000	7,487,000,000	
Hours run per average active spindle	5,149	4,876	5,094	5,371	5,424	4,882	5,760	5,748	5,499	5,904	
MARKET											
COTTON TEXTILES											
Production in square yards	10,572,421,000	9,779,238,000	10,171,225,000	11,083,383,000	10,863,129,000	9,391,578,000	11,206,659,000	11,415,218,000	10,593,006,000	11,300,032,000	
Exports in square yards	628,675,000	673,601,000	774,945,000	1,480,025,000	938,796,000	880,255,000	558,678,000	802,427,000	761,595,000	621,005,000	
Imports in square yards	11,216,000	80,029,000	43,758,000	13,962,000	31,749,000	19,743,000	47,799,000	45,779,000	16,317,000	64,251,000	
Available for domestic consumption	9,954,962,000	9,185,666,000	9,440,038,000	9,619,320,000	9,956,082,000	8,531,066,000	10,695,780,000	10,658,570,000	9,867,748,000	10,743,278,000	
Population at July 1st	138,397,000	139,928,000	141,389,000	144,126,000	146,631,000	149,188,000	151,677,000	154,360,000	156,981,000	159,629,000	
Available for per capita consumption in square yards	71.93	65.65	66.77	66.74	67.90	57.18	70.52	69.05	62.86	67.30	

*Includes cotton system spindles on other fibers. N.A. — Not available.

does not have to frequently leave the machine to get empty pins.

Although the arrangement is somewhat similar to pin magazines furnished by some machinery manufacturers, this one has additional capacity for pins, requires little space (no floor space), and was made locally at small cost.

This device is better suited for ribbon lappers since they are lower in machine height.

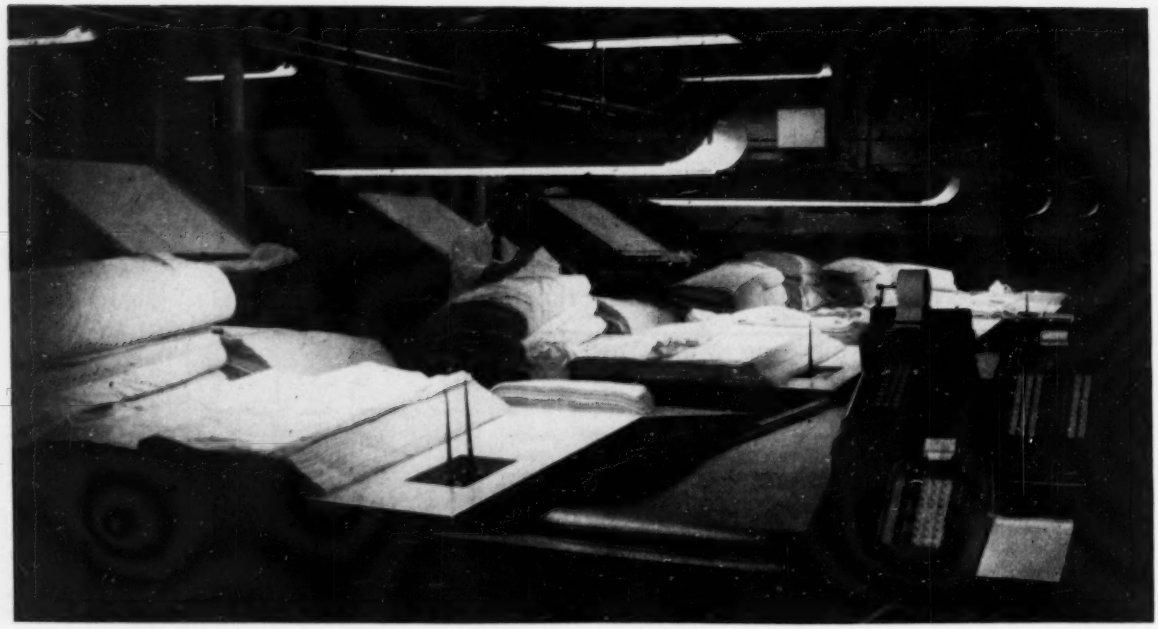
16% More Man-Made Fiber Produced in 1953 than 1952

A survey of world production of man-made fiber reveals that in 1953 global output aggregated 4,527,000,000 pounds, an increase of 16% over the previous year and a new world record, according to the "Textile Organon," statistical bulletin of the Textile Economics Bureau, Inc. By categories, man-made fiber output last year consisted of 4,142,000,000 pounds of rayon and acetate and 385,000,000 pounds of the non-cellulosic man-made fibers.

Man-made fibers comprised 19% of the total world output of fibers (man-made, cotton, wool, and silk), which amounted to 24,056,000,000 pounds in 1953. In 1952, the man-made fiber share was 17% of the total.

As of March 1954, world capacity for producing the man-made fibers is estimated by the "Organon" at 6,064,000,000 pounds annually. By the end of 1955, capacity is expected to reach 6,686,000,000 pounds. The biggest proportion of the increase in poundage terms is scheduled for rayon and acetate, with primary emphasis on the expansion of capacity for producing viscose rayon staple and tow. Percentagewise, however, the projected capacity increases for the non-cellulosic fibers are very much larger. This reflects, according to the "Organon," the widespread demand for these newer fibers, which are still in short supply in many countries of the world.

The United States continues as the largest producer of rayon and acetate in the world, with an output in 1953 of 1,196,900,000 pounds or 29% of the world total. Japan was in second place last year with 520,800,000 pounds or 13% of the total. West Germany produced 375,200,000 pounds of rayon and acetate, 9% of the total.



ADDING MACHINES at end of conveyor belt are used to tabulate the number of yards in each piece of cloth as it is moved from the table to the trucks. Adding machine tapes serve as bale tickets. Note elevated and illuminated cloth inspection frames which permit first inspection at the cloth folders.

"these cloth room

By Harold E. Wilson
Overseer

HERE'S how one mill improved cloth room operations and production on 80 x 80 print cloth:

Before

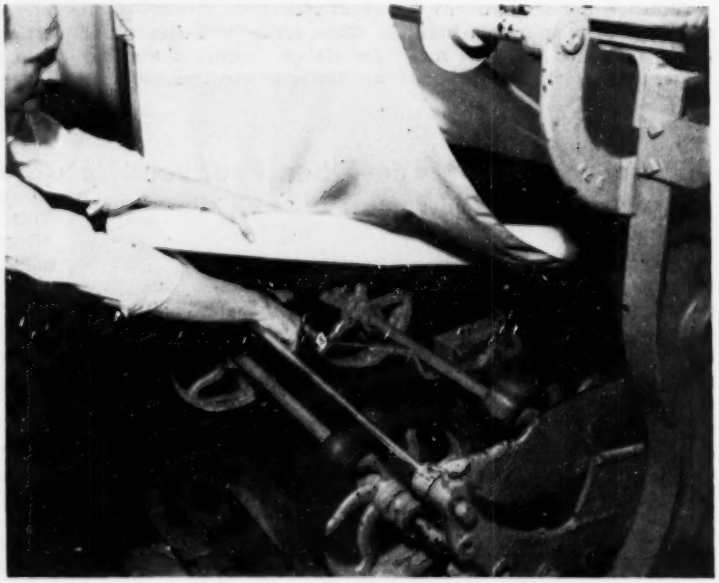
All cloth room machines were formerly belt-driven by one 30 hp motor pulling overhead shafting. There were two lines of machinery consisting of stitcher, shearer, and folding machines connected in one continuous process. The baling press was also driven by belts from overhead shaft.

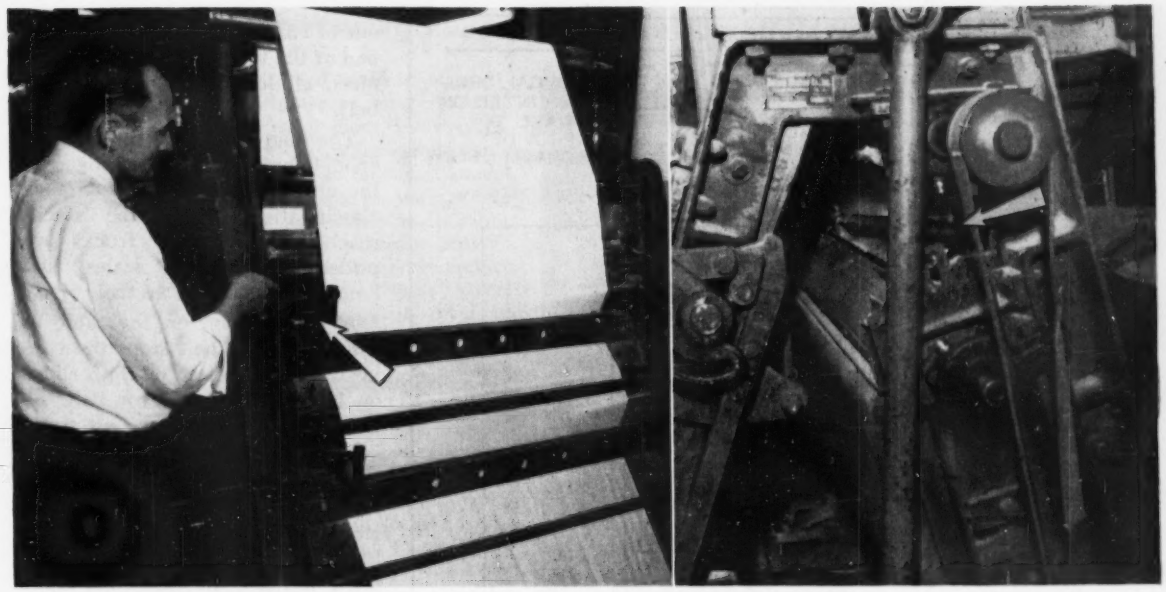
There were two overhead suction fans which served the two shearing machines and carried the dust and strings to a return air conditioner located in the cloth room.

A small drum served to dispense oil stain remover fluid, and the graders walked to the drum to refill their cups (oil cans) which are used in applying the remover to the dirt and oil spots on the cloth.

Small, individual grading tables were used, and these held only one piece of cloth at a time. Grader helpers had to move cloth from the

MERCURY SWITCH stops machine with enough cloth left on roll to sew seam to next roll to be run.





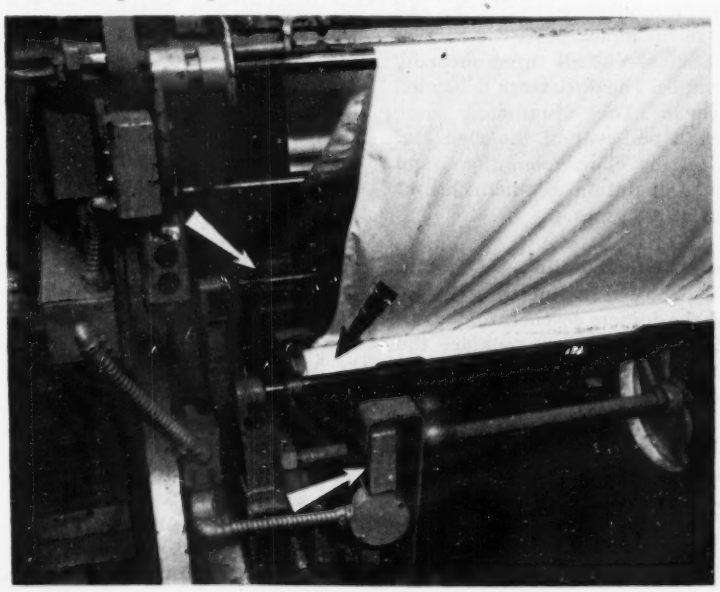
SLACK SELVAGE ROLLS installed on Hermas cloth shearer. These rolls are spring loaded 1" pipe with ball bearings in each end. A ½" steel rod runs through the pipe and serves as bearing arbor at each end. The rolls apply enough tension on slack selvage to permit good shearing full width of cloth.

improvements paid"

long table behind the folders to the grader tables, and then after it had been graded, the helpers had to move the cloth to the truck for baling.

We were running two shifts on the machines. All grading was done on the first shift, and we stacked the second shift production on tables and did our cleaning on the second shift after the day's run of cloth had been completed.

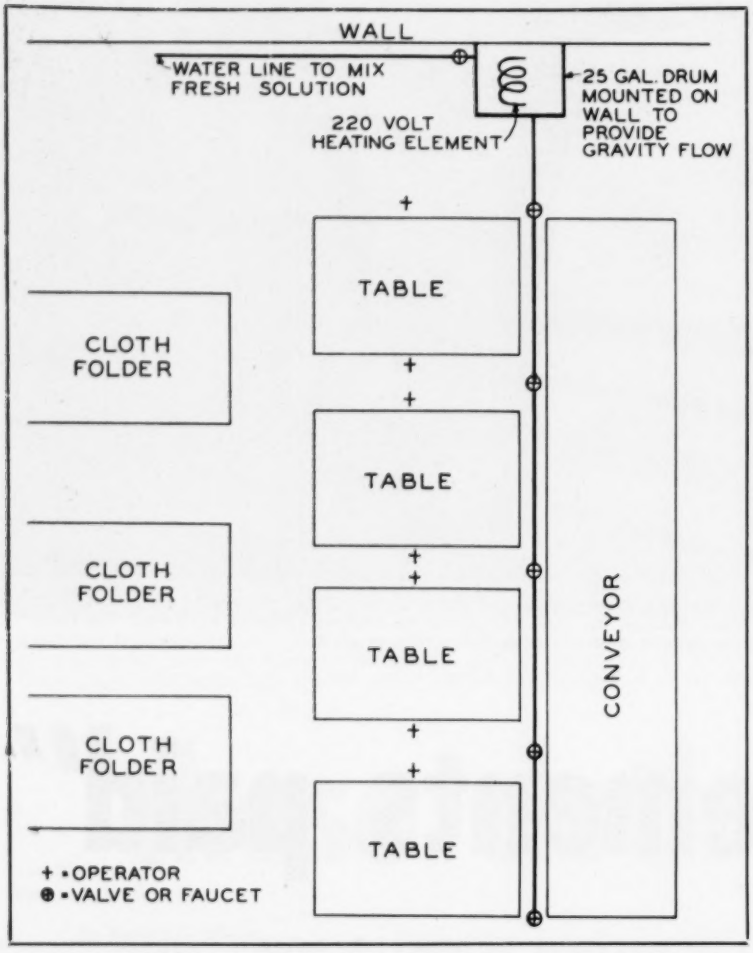
ELECTRIC EYE also serves to stop machine with no cloth left on tube but permits operator to sew seam to fresh roll.



After

Motorized. All machines in the cloth room were individually motorized, and a third line of machines was installed to enable us to run all production on one shift, thereby saving approximately $4,000 annually. By running all production on one shift the cloth is handled only once, and this permits better and more efficient operation.

Stop Motions. Stop motions were connected to the motors which pull the cloth into the scray from the stitcher basket. On one of these, an electric eye stops further movement of the cloth when the



CLEANING FLUID DISPENSER SYSTEM, shown here schematically, eliminates need for cloth graders to leave job to fill their hand applicators.

cloth leaves the tube. This leaves the end of the cloth ready to be sewed to the end of the next roll. On the other two machines, mercury switches are used to stop the motor when only one to two yards of cloth are left on the tube so that the end is readily available to be sewn to the next roll.

All of the cloth is folder-inspected over a transparent surface with soft lights underneath. The folder operator places markers in the cloth folds at locations where any type of defect appeared to be. The inspectors and graders examine the cloth more carefully where these markers appear. The markers are made of small strips of leather.

Cleaner Cloth Room. The return air conditioner was moved to a room adjoining the cloth room, and one 20 hp motor pulls the suction fan that serves all three shearing machines. The duct-work is located overhead. This eliminated more than 60 per cent of the dust and lint on the cloth room floor, and we can maintain a much cleaner room at all times.

Less Cloth Handling. New tables were installed in line directly behind the folders so each folder operator now has room to place the cloth he runs in stacks on the end of the grading table. This gives the grader enough room to grade cloth beside the stack on the table. We also installed a conveyor belt beside the grading tables. This belt saves more than $2,000 annually in terms of labor and cloth handling. The grader can slide the cut of cloth from the stack on the end of the table, grade it, and then place all lengths of cloth on the belt.

The man who doffs the belt has enough baling trucks arranged at the end of the belt to stack each classification. When the stacks reach bale size, the trucks are pulled out to the scales, and empty trucks are put in their place.

A stop motion on the table at the end of the belt stops the conveyor when a piece of cloth slides on it from the conveyor belt. As the cloth is moved, the belt starts running again.

Beside the table are three adding machines. As each piece of cloth is moved from the table to the trucks, the quantity is tabulated on the adding machine tapes which serve as bale tickets and are totalled upon reaching bale quantity. The adding machines permit the bale checker to move bales more rapidly and to have more time for other activity.

Our bale trucks are equipped with false bottoms which are pulled onto the bale press by a motor driven arrangement. After it is pressed, the bale is rolled out of the press and the false bottom is returned to the truck with fresh paper and burlap covering, ready to be loaded again.

Cleaning Fluid Dispenser. A 25-gallon tank equipped with a heating element was installed on the wall at one end of the conveyor. This tank serves as a reservoir for oil stain remover fluid. A water line is connected to the drum to speed the preparation of the fluid when the tank needs refilling. A copper pipe delivers the fluid from the tank to locations at the tables. The pipe runs alongside the conveyor belt, between the tables and the belt. At each grader's table there is a spigot on the copper pipe which enables the graders to fill the hand dispensers with oil stain remover fluid without having to leave the job as they formerly did.

Each grader table has a large drawer for housing all working tools, and a place is provided for the cloth markers or flags (leather strips) as they are removed from the cloth. Each grader has a rub-

After-Waxing Found Desirable for Filament Dacron Yarns

For added lubrication resulting in better weaving efficiency and cleaner cloth, the application of a water-emulsifiable wax* on continuous filament Dacron warps at the take-up end of the slasher is desirable, according to a recent bulletin issued by the customer service section of the Textile Fibers Department of E. I. du Pont de Nemours & Co., Inc.

The wax is applied to the sized warp after it leaves the last drying drum but before it contacts the split rods (see accompanying sketch). The wax is melted and kept at 140-150 F by a steam heated pan or by heating elements located in the trough. The melted wax is applied (at 140-150 F) from the trough by a driven roller rotating at a speed of 2½ rpm while slashing at 35 ypm. The wax solidifies imediately after leaving the applicator. From ½ to 1% wax is picked up during this operation.

It is important that a water-emulsifiable wax be used, the bulletin states, so that no difficulties will be encountered in removing it from the fabric during finishing operations.

Equipment for applying the wax at the slasher can be fabricated in any mill machine shop or purchased from Chemical Processing Co. of Charlotte, N. C., or Seydel-Woolley & Co., Atlanta, Ga. (for description of the Seydel-Woolley device, see TI for April, 1954, page 239).

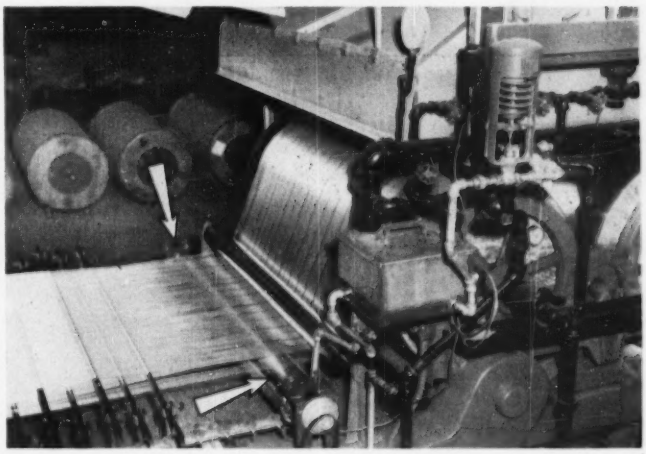
Sizing Formulas. On page 131 of TEXTILE INDUSTRIES for December, 1953, it was reported that Elchem 1273 (product of Electrochemicals Dept., Du Pont Co.) had up to that time given best results for sizing continuous filament Dacron yarns. It has now been found that Nopco D (product of Nopco Chemical Co.) also gives good weaving results on certain fabrics. Formulas for the use of both products are available from Du Pont; these should provide a starting point for determining the optimum formula for any particular fabric construction and weaving condition.

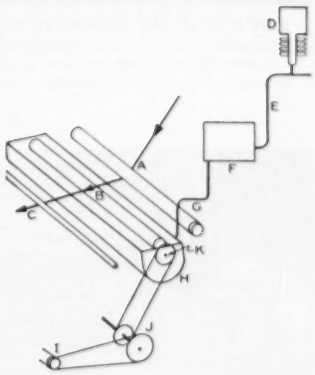
Other suggestions given for slashing this yarn were:

1. Size bath temperature; 140 F.
2. Drying can temperatures: 170, 190, 220, 220, 220, 180.
3. Slasher speed: 25 to 35 ypm.
4. Stretch: 0% with positive tension.
5. Clean kettle lines thoroughly when changing from one size to another that is chemically different.
6. Amount of size pick-up can be determined by subjecting duplicate weighed, conditioned, sized and unsized yarn samples of approximately 10 grams to a normal alkali "boil-off" procedure. After weighing the "boiled - off" conditioned samples, size and sulfonated oil pick-up can be calculated as follows:

%Pick-Up = (Average % weight loss from sized sample) — (Average % weight loss from unsized sample)

The use of unsized sample discounts the water extractables present in the yarn before sizing.





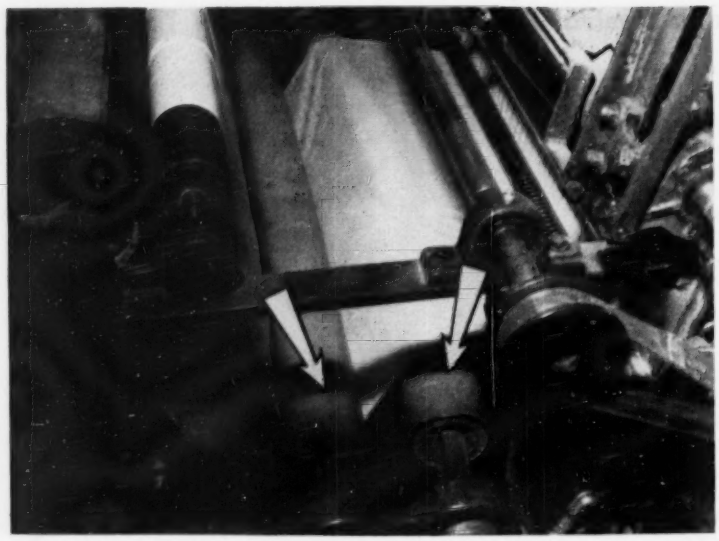
Dacron warp is waxed after leaving last drying can on slasher, as shown in this photo. Arrows point to wax applicator roll. Referring to diagram at right, warp yarn passes under guide roll A and over wax applicator roll B to beaming end of slasher (C). Motor valve D controls temperature of steam line feed E into wax storage tank F whicch feeds melted wax through line G to wax pan H. Applicator roll B is set in wax pan and is driven from a main shaft I through belts and pulleys J by a variable drive pulley K.

*Syncote "N," product of Seydel-Woolley & Co., Atlanta, Ga.; Lubkote, product of Chemical Processing Co., Charlotte, N. C.; Ceraloid 356, product of Colloids, Inc., Newark, N. J.

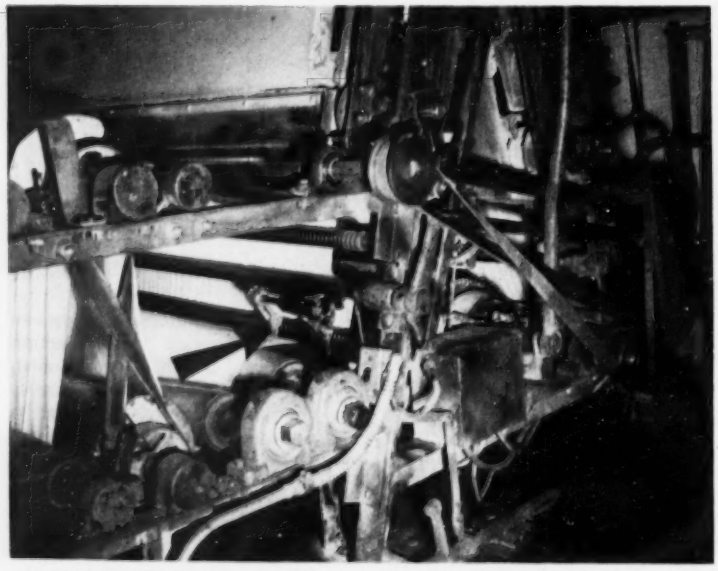
ber mat on which she stands while working, thereby reducing fatigue.

Our floors are marked to indicate areas for parking cloth trucks, storage area for bales ready to be moved to the warehouse, and a traffic lane through the cloth room.

Handling Slack Cloth. We were having our share of slack selvages and slack cloth which was difficult to shear. There was also a loss of time and bad cloth was caused by slack selvages being cut and by false trips on the shearing machine. The false trips caused the shearing blades to close on the seam,



LOCATION OF EXPANDING ROLLS to prevent slack selvage was changed from place above shearing blades to position in front of blades. Since cloth is now pulled over expanders before contact with blades, cut cloth is made less frequently.



SEAM PROTECTOR made from mercury switch serves to prevent cut seams when standard seam protector is tripped by wrinkle, slug, or gout. When cutting blades are opened by "false trip," the additional protector starts the blade opening cycle anew, thereby preventing the blades from closing on the seam which may be 4-5 yards behind the defect which caused the false trip.

thereby cutting and damaging several yards of cloth.

Slack selvage rolls were installed at a cost of approximately $100 per machine, and seam protectors were installed at a cost of about $25 per machine, enabling us to increase machine production by 5 per cent and to save approximately $25 weekly in terms of cut and damaged cloth.

The slack selvage rolls include two rolls for each shearing blade mounted on the guard (Hermas vertical-type shearing machine). Each roll consists of a ½" steel rod 24" long, with an L-shaped end. This is mounted on a flat piece of steel 2" wide and 40" long. The flat iron is bolted to the blade guard by bolts near each end.

A 1" pipe 18" long with ball bearings in each end is used on the other end of the 24" steel rod. A spring is attached to a hole in the end of the steel rod and run to the adjustable arm to pull the rod and roller against the cloth. This pulls the cloth selvages against the blade guard. The slacker the cloth, the more the roller touches the cloth and pulls away from the blade against the guard. The rolls run against the cloth at all times. We used a starting rod spring from Model E looms, and it does not have to be adjusted often—about once every three or four months.

Seam Protector. The seam protector is mounted on a stand about 8" in front of the trip bar of the shearing machine. The stand is made of flat iron fastened to the floor with cloth running over a 1" pipe roller mounted on the flat iron stand.

The protector consists of a mercury switch on one end of a ½" rod 10" long. On the other end of the rod there is a finger 3" long (see accompanying illustrations). We have a 1" pipe 4" long with ball bearings in each end mounted on the flat iron stand at the edge of the cloth. The 10" rod runs through the 1" pipe extending over the cloth so that the finger can lie on the cloth on top of the pipe roller with the mercury switch level on the other end of the 10" rod.

This arrangement allows the seam to hit the finger as the seam goes over the pipe roller, thereby tilting the mercury switch. The mercury switch is wired to the coil box that is set in motion when the trip rod on the machine is tripped. When a slug, gout, ropey filling, or rolled selvage trips the rod, the blade guards open. If the seam reaches the finger of the seam protector before the guards close, the current is interrupted by the mercury switch, stopping the closing cycle and starting it over again, thereby allowing the seam to pass through the blades without being cut. This saves considerable time, production, and damaged cloth.

THESE COMBER CHANGES CAN

Reduce sliver variation 30%

Simple modification of comber draw box and reproportionment of drafts also applicable to drawing frame and sliver lapper.

By Summey M. Cauble, Jr.
EXCLUSIVE

IF YOU have 4 over 4 or 5 over 5 drafting roll assemblies in your comber draw box, you can reduce comber sliver variation by 30 per cent or more through a relatively simple modification*. In one series of tests on 20 Nasmith combers, sliver variation was reduced from an average of 30.9 per cent before modification to 19.7 per cent after. A similar reduction was obtained after the draw boxes of Whitin D-4 combers were modified. Equally good results can be obtained on drawing frames and sliver lappers.

The basis of these reductions is the conversion of 4 over 4 draw boxes to 3 over 4, and conversion of 5 over 5's to 4 over 5's. Further reduction is then obtained by a rearrangement of draft ratios.

Conversion. The first step in converting a 4 over 4 draw box to a 3 over 4 is to remove the two center top rolls, lettered "A" in Fig. 1. These should be replaced by a single roll "B," with its bearings placed between the two center housings. Needle or ball bearings are recommended to eliminate excessive oiling.

The greater the diameter of the cot on the new roll, the better will be the cushioning effect on the two bottom rolls. We have found that a cot with an outside diameter of 1¾ inches to 2 inches on a 13/16-inch arbor is most satisfactory. Whatever size is chosen, it is best to standardize on one size to simplify ordering cots. The arbor may be made from one of the rolls previously used.

The same clearers may be retained. The new large roll should touch but not protrude too high into the clearer. The clearers should touch each top roll in the draw box.

The second bottom roll should be removed and replaced with a smooth, non-fluted slip roll "C". This roll may be made by turning down a fluted roll, provided the smooth roll produced is not less than 1 inch in diameter. However, since this steel is difficult to work, most mills will probably find it more convenient to buy the roll ready made.

We have found it advisable to remove all leather-covered top rolls and re-cover with cots, since leather-covered rolls will not pull the sliver through properly after conversion.

Conversion from 5 over 5 to 4 over 5 is done similarly, with the back set of rolls acting more as carrier rolls than drafting rolls.

Weighting. After conversion, more weight is required on the center top roll, since it is larger than the others and covers two bot-

*Another article on 3 over 4 roll conversion and drafting appeared on page 124 of TEXTILE INDUSTRIES for June 1952.

FIG. 1. How 4 over 4 draw box is converted to 3 over 4.

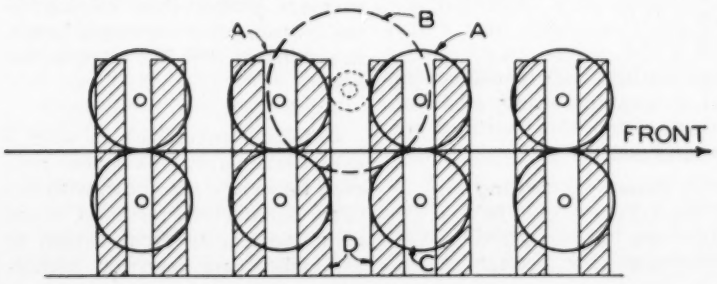
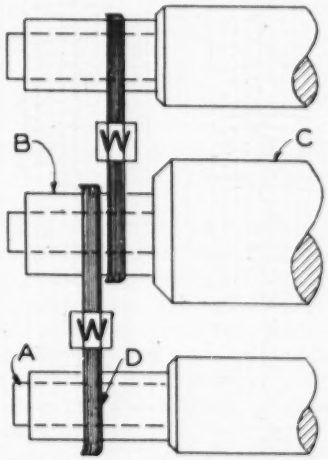


FIG. 2. How to weight 3 over 4.



A = AXLE OF DRAFTING ROLL
B = BEARING OF DRAFTING ROLL
C = COT OF DRAFTING ROLL
D = SYSTEM OF WEIGHTING
W = WEIGHT

tom rolls. A simple, inexpensive method of weighting is shown in Fig. 2. This method uses two saddles, both resting on the bearing of the large roll.

The same weights used before conversion may be retained. They should be attached to the center of the saddles, as shown in the figure, and allowed to hang as before. Individual weights may be used if preferred; however, a weight about 10 pounds heavier must be used on the large top roll.

Draft Proportionment. Although a substantial improvement in sliver uniformity may be obtained by the conversion alone, a further improvement can be effected by a change in draft proportionment. The following is recommended for the 3 over 4:

Zone	Draft
1-2	2.0± (Changed to obtain desired total draft)
2-3	1.6
3-4	1.3

This draft proportionment is also recommended for mills which already have 3 over 4 draw boxes.

For the 4 over 5, the following draft proportionment is suggested:

Zone	Draft
1-2	2.0± (Changed to obtain desired total draft)
2-3	1.5
3-4	1.3
4-5	1.1

Roll settings will of course depend on the staple length used. For 1⅛ inch cotton, these settings are recommended:

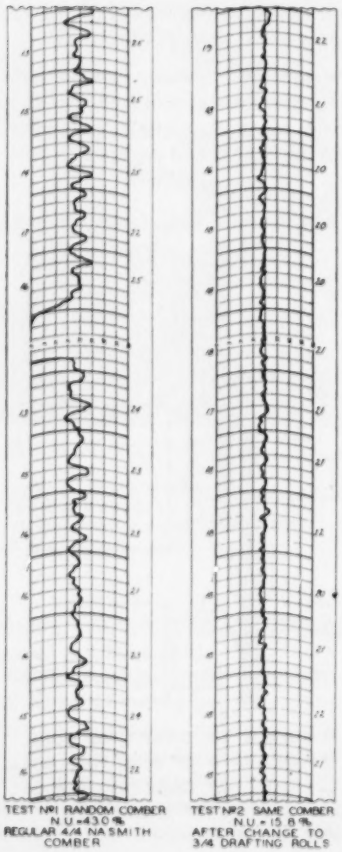
Zone	Setting
1-2	1-7/16"
2-3	1-3/8"
3-4	1-5/16"

For the 4-5 setting on 4 over 5 draw boxes, 1-5/16 inches is suggested.

Too wide a setting is preferable to one that is too close, for better drafting and less fiber breakage. It is advisable to make roll settings on the basis of actual fiber measurement, rather than relying on the correctness of the staple length as purchased. The two often do not agree.

Results. Conversions to both 3 over 4 and 4 over 5 have been running for over a year now, with entirely satisfactory results. Cottons of staple lengths from 1 inch to 1½ inches have been run, includ-

FIG. 3.



Carbonizing Wool-Dacron Blends? Here's Help

Where it is necessary to carbonize wool used in blends with Dacron, it is often advisable to carbonize the wool stock before it is blended with the Dacron so that carbonizing of the fabric will not be necessary. If, however, the wool stock is not carbonized and it becomes necessary to carbonize the blended fabric, this can be done with aluminum chloride following the procedure normally used with this agent on 100% wool fabrics.

If aluminum chloride carbonizing equipment is not available and if the fabric contains at least 45% wool, it should be possible to carbonize the fabric with sulfuric acid. However, carbonizing conditions must be carefully controlled and adjusted to obtain adequate carbonization without damaging the Dacron. The strength of the fabric should be determined before and after carbonization.

The presence of starch, as used in the warp sizing of some commercial fabrics, should be determined. When starch products are not completely removed from fabrics before carbonizing, the starch, being cellulosic in nature, is also carbonized. These carbonized particles adhere to the fiber surface, leaving a gray tinge not easily removed by scouring or bleaching. Therefore, fabrics suspected of containing starch should be given a starch-iodide test consisting of spotting the fabric with a 15% solution of potassium-iodide. Presence of starch is indicated by a cornflower blue coloration of the spots.

Before carbonizing, those fabrics containing starch should be treated with an enzyme solution to convert the starch products to a more soluble form, effecting easy removal by rinsing and scouring.

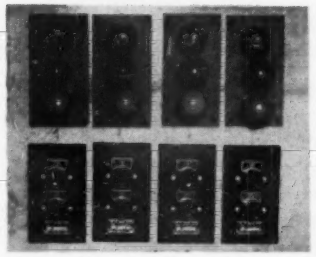
Some other carbonizing conditions of particular importance are as follows:

1. Strength of the sulfuric acid used.
2. The amount of acid on the fabric entering the dryer.
3. Temperature and time of drying and baking.

The acid content or pick-up must be maintained at a minimum which will provide adequate carbonization. This minimum will depend on the amount of Dacron in the blend, being higher when the fabric contains only a small amount of Dacron, and on the condition of the wool used in the blend. After baking, the hot fabric should be cooled to room temperature and neutralized as soon as possible.

From bulletin issued by Customer Service Section, Textile Fibers Dept., E. I. du Pont de Nemours & Co., Inc., dated March, 1954.

Warning Light Indicates Size Tank Near-Full Point



The panel control board in the slashing room of a New England mill has been fitted with a three-series light indicating system for each of its four slashers that includes a white warning flash when size levels being built up in feed tanks reach a point 8 inches below the full mark.

The four controls are wired in tandem on the panel board; each includes a green, red, and white light, plus an off-on switch. When the red light is on, size is being pumped into the tank represented by that particular control from the mixing station; a solenoid valve positioned 8 inches below the full mark in each of the feed tanks at the slashers, discontinues the red light and flashes the white one when the liquid reaches that point.

This allows a safety factor of 16 minutes between warning and full tank levels. By being able to knock off the feed pump by the switch button during this period without walking to the feed tank to check, tenders are saved considerable motion. Activation of the off button on the switch lights the green bulb, indicating that no size mix is being pumped to that particular tank.

Greater Individuality Needed—Mrs. Murphy

Mrs. Elsie M. Murphy, president of S. Stroock & Co., Inc., and principal speaker at the recent commencement exercises of the Philadelphia Textile Institute, called for greater individuality in the business world during her address which described the textile industry as a "fertile field" for creative effort.

"If I were to make any observation stemming from my own personal experience, I would tell you that I am often distressed by the inclination of many young men and women to desert individuality for the safe harbor of the herd," stated Mrs. Murphy.

"If at this moment, any one of you is imbued with the lone ambition of acquiring material reward, the altar of individuality may be a difficult place of worship," she continued.

"Even technological success cannot satisfy you. There must be a positive consciousness of the barriers to be overcome, an awareness that all the secrets of nature, of science, have not been discovered; that life holds more worthwhile things yet unrevealed than the totality of things we know today; that there is a full and complete life to be lived, unfettered by slavish adherence to tradition.

"But we cannot see beyond the mountains, and only as we pass over the summit of the first, will new and wider horizons appear. Those horizons are for the individualists, not the conformists. They lead to the kind of success which is attained only by the individual who devotes himself to achieving his ideals, his fullest development.

"Irrespective of our own personal ambitions, thoughts, and desires, man is part of an intricate social organism and must accommodate himself to the obligations imposed upon him as a part of a total homogenous society. Among these are the obligation to participate freely and actively in the discussion and solution of public questions which are inherent in the functioning of democratic government," Mrs. Murphy concluded her address to the graduates.

ing both rain-grown and irrigated types. Although we have not run synthetics, other mills which have made the conversion have run them successfully. It is not advisable to run staple longer than 1½ inches, because of the extremely wide settings required.

In the tests referred to, the draw boxes of 20 Nasmith combers were converted to 3 over 4. Twenty identical combers were left unmodified as a control. The average sliver nonuniformity for a large number of tests on the unmodified combers was 30.9 per cent, and for an equal number of tests on the combers which had been converted was 19.7 per cent, a reduction in nonuniformity of more than 36 per cent.

Proportionate reductions were obtained with combers on which the draw boxes had been converted to 4 over 5. The percentage nonuniformity was greater both before and after conversion with 4 over 5 than with 3 over 4, leaving the percentage reduction about the same for both types of conversion.

Measurements were made with a Brush Uniformity Analyzer, which was checked by a service representative before and after the tests. High and low readings were taken at intervals of 2½ feet, instead of the customary 10 feet.

Fig. 3 is a portion of two charts from the Brush instrument, showing the improvement in uniformity of comber sliver obtained by converting the draw box from 4 over 4 to 3 over 4, and reproportioning the drafts. Both charts were selected at random from a large number of tests.

Equally good results have been obtained with drawing frames and sliver lappers. Ribbon lappers can not be successfully converted, since lap-ups occur at each piecing made by the operative.

88% of their seamless

Staff Prepared

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HERE'S how one successful mill makes 88% first quality work on 400-needle machines and in all handling and operations through preboarding.

Instead of inspecting at the machine (the most common practice), the stockings are gathered and inspected on a board at the end of the line. In this way handling is reduced, thereby reducing the chances for picks, pulls, snags, or other damage. The knitter inspects the work on the board forms and wears "old standby" knitted nylon gloves.

To avoid a problem arising from this system of knitter inspection, each stocking is code marked in the welt during the knitting operation so the knitter can determine which machine is making bad work when he inspects at the board. Tucked stitches in different combinations indicate which machine each stocking came from.

Compressed Air Helps. A copper air line is connected to the dial caps on each knitting machine. Air at pressure of 80 psi is directed through this line onto the knitted fabric. A piece of flexible tubing on each of the copper lines permits raising the knitting head when necessary. The compressed air keeps the fabric pushed down and away from the needles and sinkers. This prevents the yarn from balling up at the top when making the welt. Also, air pressure helps to maintain uniform stitch formation and has helped in length control in this mill.

Mesh Construction. The 400-needle stockings made in this mill are of mesh or tuck stitch construction. This construction does not show streaks like a plain knit-

STOCKINGS ARE INSPECTED ON A BOARD at end of each line of knitting machines instead of at each machine. This procedure reduces handling. Each knitting machine identifies its work by a code number of tuck stitches in the welt.

PREBOARDED STOCKINGS are counted out in a special trough which permits easy insertion of the hose into a soft knitted tube.

ted fabric. On plain fabrics, a fabric take-up is used after the welt is knitted; however, no such take-up is used in this instance.

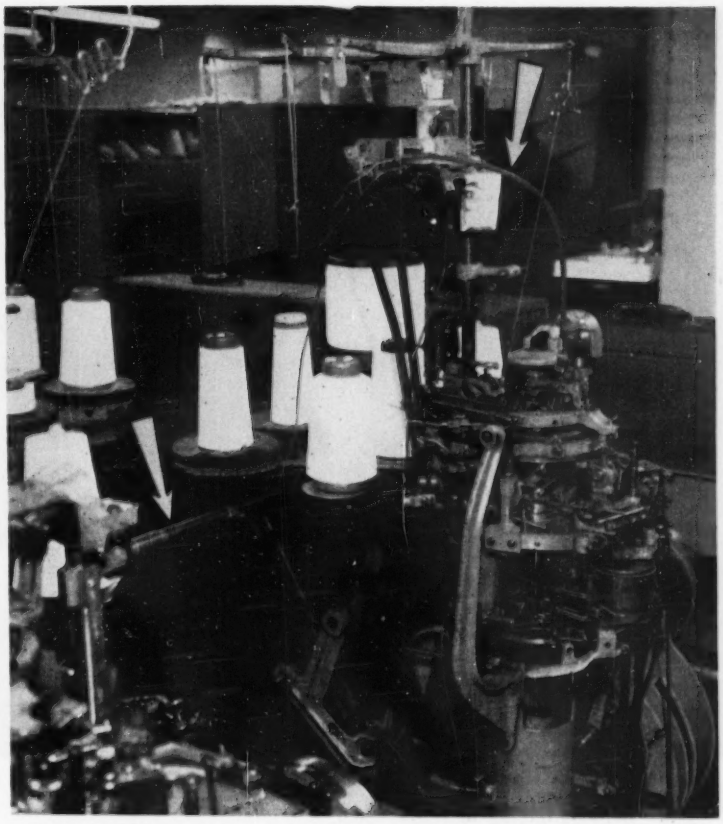
Vigilant Fixers. Fixers go over and check the details of one machine each day and thoroughly clean and repair where necessary. This job is in addition to other duties. The fixer also blows off all machines once each day, and machines are oiled once each shift by the fixer.

The tray system of handling is used throughout this mill, and stockings are tied in bundles of a dozen at the knitting machine after the knitter's board inspection.

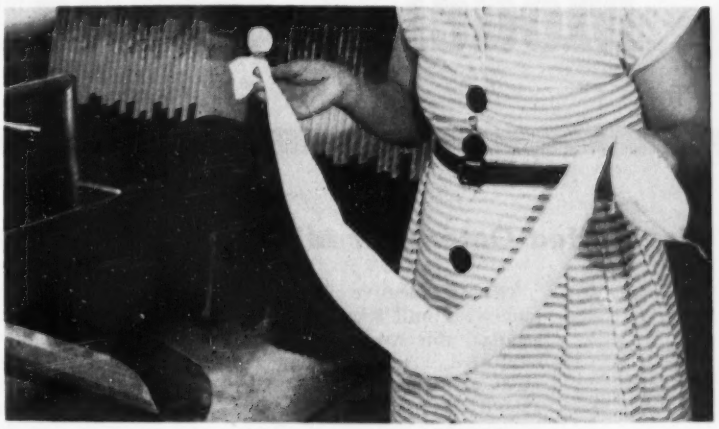
Looping. The stockings are left in the tied bundles for the looping operation to minimize handling. The trays are taken from looping to inspecting where the bundles are untied so the stockings can be inspected.

After inspection the hose are not tied in bundles again; instead, they are preboarded from the trays, and the preboarder counts a dozen and places them in a soft knitted tube which serves to protect the stockings through finishing and dyeing. The tube is sewed at one end, and the other end is secured by a colored rubber band.

The size of the stocking in each tube is indicated by the color of the rubber band used to secure the end of the protective tube. The tube serves to hold the stockings firmly but gently in orderly array and prevents snags and other damage while in transit to finishing and dyeing.

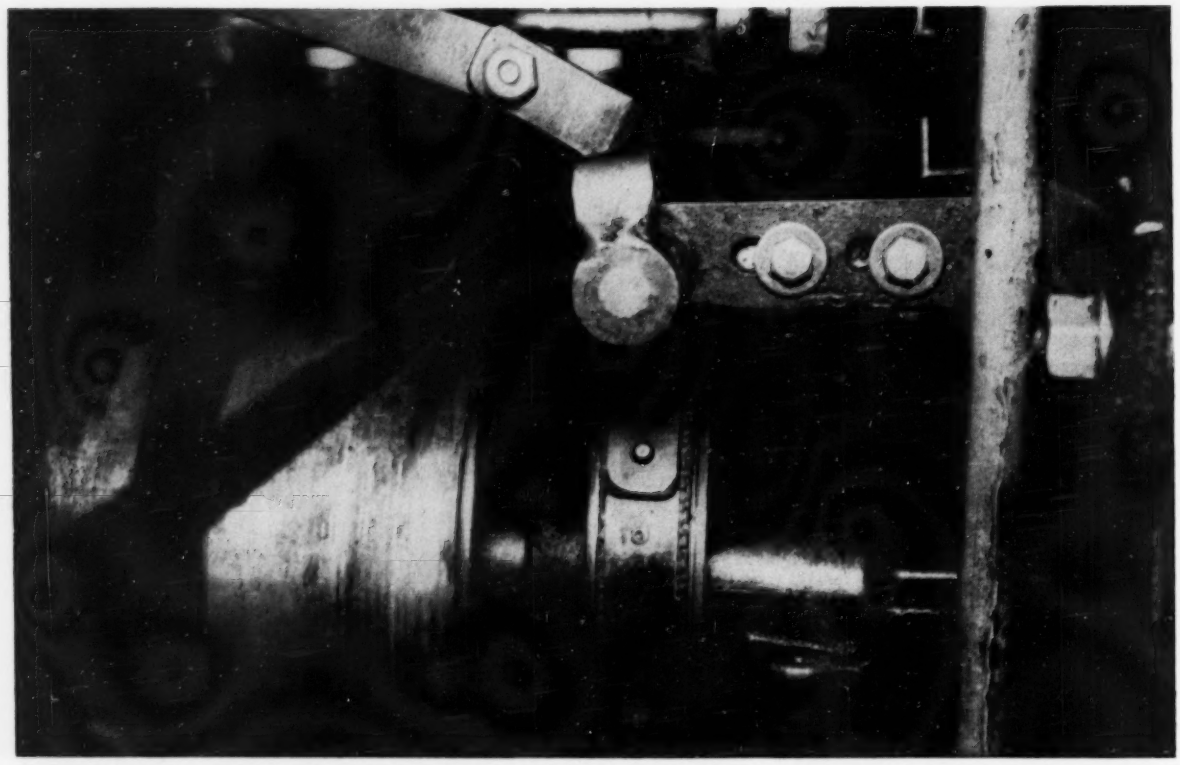


COMPRESSED AIR directed into the cylinder by copper lines (see arrows) prevents yarn from balling up at the top when making the welt. The air also keeps the knitted fabric pushed down and away from needles and sinkers.



SOFT KNITTED TUBE is sewed at one end and closed with a colored rubber band at the other end after the stockings are placed inside. Tube protects hose through finishing and dyeing.

nylons are first quality!



BRAKE stops twister cylinder and spindles simultaneously, prevents slack ends. Brake from Model T Ford served as pattern. The life of the brake lining is not yet determined; Highland has had some in use for three years without having to reline them.

Model-T brake on twister

Mr. Knitted Outerwear Mill Executive, Check Up!

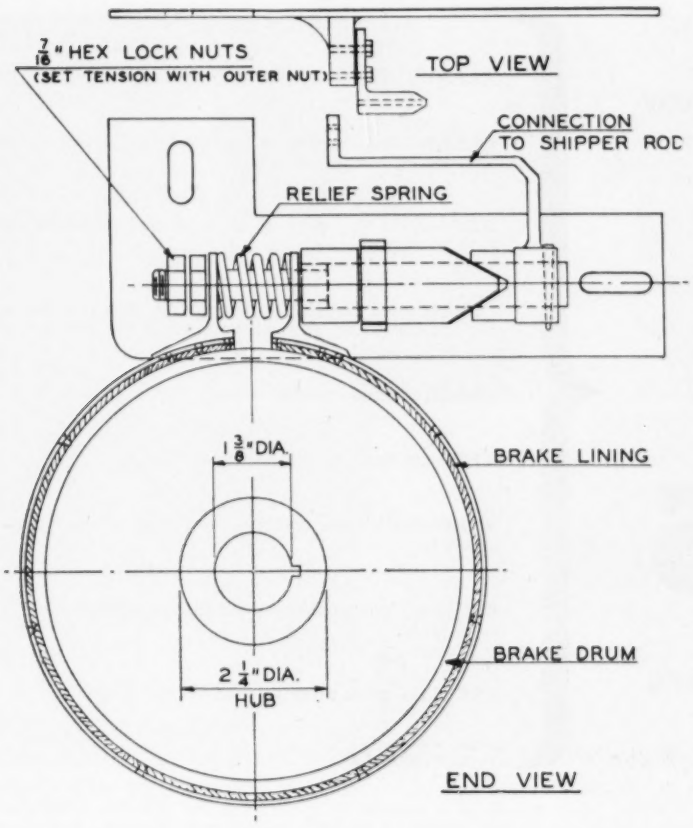
The top executive of a knitted outerwear mill should make a regular, objective study of his executives, middle management, and supervisory staff. He should also make a regular job analysis and evaluation of his management group.

Key mill positions should be understudied by young men who can step in and take over the jobs of their present bosses. The least thing that can happen to a business where personnel changes cause organizational or production dislocation is a financial loss, which, in the seasonal operation of a sweater mill, may mean a year's profits.

Many executives are handicapped in making decisions simply because they do not have control reports as a guide. The lag between cost incurred and profit or loss sustained is usually too long — sometimes the whole selling season. Get sales, production cost, inventory, and profit and loss figures accurately and quickly so that prompt decisions can be made without mental reservations. Use measurement techniques to get cost figures — don't rely on guesswork or costs during the previous years.

Sales and production coordination is essential. The top executive who regularly receives his control reports of sales, production, labor cost, and inventory, can on the basis of trends alone formulate intelligently the overall operational plan and a mill cost reduction policy.

The bill for materials is by far the biggest item in the total cost of production of an average sweater mill, and it is the easiest to control. Check yarn for quality; buy from few spinners; keep perpetual inventory control so that you may not only know exactly what you have and where it is but also that your production control



prevents slack ends

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SLACK ends were a problem each time a twister had to be stopped at Highland Cotton Mills, Inc., High Point, N. C. The momentum of the cylinder caused it to make a few revolutions after the spindles had stopped; and as a result, the top roll continued to deliver yarn, which remained unwound.

The slack ends frequently came out from the traveler, and the excess yarn had to be wound onto the bobbin by hand.

Experimenting with methods for making the cylinder and spindles stop at the same time, Thomas H. Jones, machinist at Highland, decided that a brake was the answer to the problem. The first installations were made using a brake drum from a Model T Ford.

The brake drum is installed on the shaft of the twister, between the cylinder and bearing at the gear head end. The brake is connected to the shipper rod of the machine, and is applied when the belt is shifted to the loose pulley.

Tension on the brake drum is adjustable to cause the cylinder to stop in any desired time, and with any desired tension on the yarn.

After the first few installations proved the practicality of the idea, brakes for the remainder of the twisters were especially made, using the Model T brake as a pattern.

will make sure to use up those last few pounds of yarn; use modern equipment and processes; insure proper yarn distribution for knitting various garment components; have fixers use odd or cheap yarns when cleaning, testing, or setting up knitting machines; install and observe regularly the yarn weight accounting procedure to report deviation from standard.

Indirect jobs (fixers, working supervisors, material handlers, inspection, shipping, and receiving, maintenance men, and watchmen) can be studied, measured, and set up in such a way as to yield a full day's work for a good day's pay. Only the best operators should be assigned to material handling jobs because this work can cost out of proportion to the service rendered and also because supervisors are usually recruited from this group.

Management's duty is to provide an operator with job security, offer a good day's pay for a good day's work, and when these two conditions are being satisfied chances are that the operators will be happy. Frequently, management allows the operators to run the show. Being only human, they disagree among themselves on how the management should be controlled. They're unhappy and chances are that they get a good day's pay but cannot work because they argue about how bad things are. Another reason for unhappiness is inequity.

Incentives are necessary and good as a policy. But they are a very dangerous weapon in unskilled hands. If a mill cannot afford an industrial engineer, send the plant manager or his assistant to take an industrial engineering course during a slack season so that he may do a better job for you and prevent a lot of unhappiness among operatives.

From address by T. A. Podbereski, textile engineer, Leetham Simpson, Ltd., delivered at a meeting of the Cleveland (Ohio) Association of Knitted Outerwear Manufacturers.

Georgia mill men tell how

TO BEAT SLUBS

caused by frame cleaners

CLEAN drums of overhead cleaners once each shift.

CLEAN runout guides every two hours, roving creel and top creel each 80 hours.

SET blower properly so that all lint is blown off each circuit of cleaner.

CLEAN back boards, levers, screws, stirrups, under thread guide lids, and roll bars every 240 hours.

PLACE roving with loose ends down.

KEEP air from blowers directed properly.

KEEP creels clean and only one layer of roving on creel.

BLOW off each overhead cleaner automatically on each cycle.

USE close snick plate settings at the spooler.

*Staff Report**

Maintenance of Top Roll Covers. Synthetic is preferred by all but one of the 28 mills replying to a question asking what type of top roll covering they use. Reasons given included longer life, fewer roller laps, reduced end breakage, and lower cost. Opinion was more divided on pencil roll covering; of 11 mills using pencil rolls, approximately equal numbers favor synthetic - covered, leather - covered, and metallic.

Some mills buff top roll covers as often as every 18 40-hour shifts, others as infrequently as once in 168 40-hour shifts. The average is about every 9 months on 2-shift operation. In some cases the practice is to buff only when the spinning frame is overhauled, and a few mills have no regular buffing schedule at all.

The minimum cushion tolerated before roll coverings are replaced varies widely among the mills. One mill replaces coverings after the cushion reaches a thickness of 5/16-inch; another allows the covering to reach 1/16-inch before replacing. However, the average mill removes coverings from service when they have been buffed down to a $\frac{1}{8}$-inch cushion.

Except for normal roll picking, most mills do not clean synthetic rolls on which roller clearers are used. One mill with flat top clearers cleans front rolls every four months with a mixture of three parts mineral spirits and one part paint thinner. Two mills clean rolls with carbon tetrachloride when necessary, one on a 6-month schedule.

Top Roll Bearings. Several mills reported experience with "oil-less" finger bars and saddles. In most cases these are oiled, at intervals which vary widely among the mills answering the question.

Mill B has thirty frames equipped with oil-less bars and saddles. The finger bars are not oiled, but the back and middle saddles are oiled once a month and the front saddle once a week (80-hour week operation).

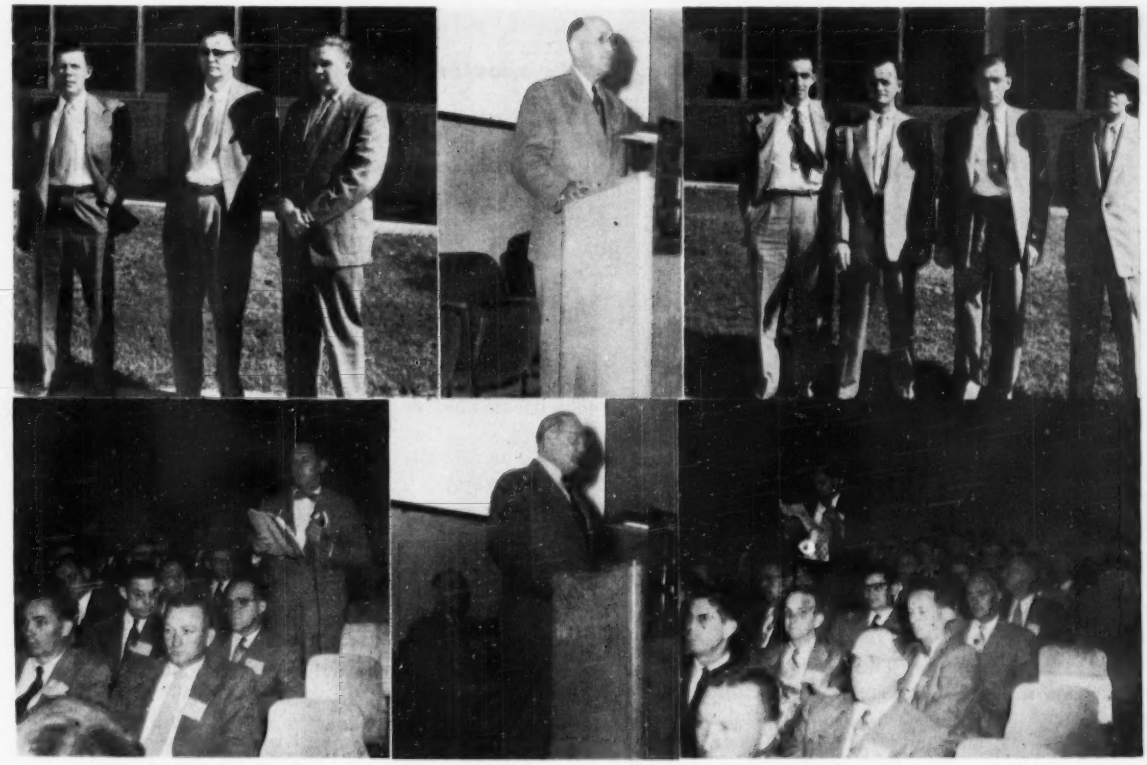
Describing its experience, **Mill J** said, "We have a nylon saddle on our back rolls . . . . We grease this with a white petroleum once per month."

At **Mill AA**, 12 frames have been running for about six months with oil-less cap bars and saddles and steel arbors. Once a month, or every 488 hours, a drop of oil is put on the front arbor. Little wear has been found on cap bars or saddles. Top roll laps have been reduced to a minimum and are much easier to remove. At this mill, yarn counts spun range from 7s to 26s and front roll speeds from 140 to 185 rpm.

Bunch Building. Asked to give their opinion on the ideal bunch for filling, 20 mills described their current practice. The accompanying table summarizes their replies.

Mill A prefers a flat bunch, whose length will allow the shuttle to make three round trips across the width of the cloth; for example, on 100-inch goods, a 600-

*A report of the opening-carding section of the spring meeting of the Textile Operating Executives of Georgia appeared in the July issue.



AMERICAN THREAD CO., Tallapoosa, Ga., was represented by, top left, left to right: **G. H. Nobles, J. M. Wood,** and **F. P. Powell.** Top center: **Turner R. Scott,** Martha Mills, Silvertown, Ga., presided over the meeting. Top right: American Thread's Dalton, Ga., plant sent **Arthur Brown, Newell Burgess, Emerson Hix,** and **F. H. Howard.** Bottom left: **Bruce Bozeman,** Callaway Mills, Manchester, Ga., makes a point during the carding discussion. Bottom center: guest speaker was **R. H. Jewell,** Crystal Springs Bleachery, Chickamauga, Ga. Bottom right: **Elmer Adams** from Swift Mfg. Co., Columbus, Ga., discusses the SRRL Opener.

inch bunch is used.

Mills making several widths of cloth usually make a bunch long enough to handle the widest fabric.

Several mills brought out that the bunch should be as close as possible to the butt of the quill. **Mill Q** begins the bunch at the start of the straight wall of the quill. This mill emphasizes that there should be no ridges on the bunch and that the regular stroke of the frame should not run in behind the bunch.

Mill X allows seven yards per bunch, regardless of yarn number, which of course changes the dimensions of the bunch as yarn number is changed. This requires adjustment at the loom, which the mill feels is the proper place for control.

Only a few mills reported using warp bunch builders. **Mill A** uses them on 77 frames, 2½" and 2¾" rings running a 10" paper tube. The builders tie down the end of the yarn next to the bobbin so that it will not whip around on the spooler and cause excessive tailings and wild yarn. **Mill I** reduced strips at the spooler by 10 per cent after warp bunch builders were installed.

At another mill warp bunch builders are considered a desirable feature on any bobbin and almost a necessity when using the tapered paper tube. This mill reported a significant reduction in small pieces that would normally have to be cut off in spooling. On the other hand, **Mill H-3** had unsatisfactory experience with warp

Here's How Georgia Mills Use Filling Bunch Builders

Mill	Bunch Width In.	Height on Quill In.*	Length of Bunch Yd	Filling Count	Cloth Width In.
A	½	½	16-17	—	100
B	½	—	6	13.25	31
C	½-¾	1	5-9	—	—
E	—	⅝	8	7	—
F	⅞	1	9	7	—
H-2	⅝	—	3	5	40
I	⅝	—	9-11	35-41	39-40
L	¾	—	8-12	10-41	40-120
M	⅜-½	⅝	3 1/3-4	17	36-56
N	7/16-½	9/16	12-15	32-40	45
O	¾	—	10	25	44
P	⅝	< ¾	7½	11	40
Q	⅝	—	6½	—	40
S	½	¾	8	10-20	32-56
U	⅝	—	—	13	39
V	⅝	—	7	12.25	43¾
W	½-⅝	¾	7-9	6-8	60
X	—	½-¾	7	—	60
Z	½	½	4½-5¾	10	17-49
AA	9/16	9/16	8	26	41.93

*Without giving feeler trouble at loom.

Maintenance methods for top roll covers. Should "oil-less" bearings be oiled?

How to reduce tailings at the spooler. Revolving versus flat clearers.

Increase package size, reduce bobbin maintenance with aluminum adapters.

How to reduce kinks at the Barber-Colman spooler.

bunch builders; mechanical defects caused considerable tangled yarn.

Spinning Clearers. The commonest practice in Georgia mills is to use revolving clearers on front rolls and flat clearers on middle and back rolls, although all combinations of revolving and flat clearers are used at one or another of the mills replying to this question.

Mill A uses flat clearers on middle and back rolls, but has only four clearers per side. These are moved up and down the frame on schedule so that the middle and back rolls are cleaned by them every 120 hours. The mill feels that it gets more benefit from the overhead cleaners blowing through the rolls and aprons than would be the case if the flat cleaners were left on all the time.

Mill J is one of the few mills to report using revolving clearers on all top rolls. This mill feels that revolving clearers eliminate the eyebrowing common with flat clearers. They are harder to clean, but do not have to be cleaned as often.

Flat clearers are used on all rolls at **Mill E.** Reasons given were:

1. Keep top rolls cleaner.
2. Help keep fly out of yarn.
3. Easier to clean.
4. Remain in place.

Opinion was about evenly divided on the value of underclearers on the back steel roll. **Mill I** uses them because dog hangers and leathers are kept cleaner when they are used; **Mill J** because the underclearer keeps the roll clean and picks up stray roving and waste. Several mills noted that they are difficult to keep clean, and some do not use them for that reason. **Mill H-3** would rather clean the rolls than remove the bottom clearers for cleaning.

Mill AA uses underclearers on the back steel rolls, claiming that the clearer helps to keep rolls and apron clean, and also adds tension to the apron. This mill's experience is that if these clearers are allowed to stop, fly will be built up and fed or blown into the yarn.

Ball Bearing Spindles. Experience with ball bearing spindles was reported by 11 mills, all of whom had excellent results. Advantages of the ball bearing spindle were given as:

1. Less lubrication required.
2. Fewer ends down (10 to 15 per cent reduction at one mill).
3. Rarely get out of line.
4. Lack of vibration.
5. Reduced breakdowns.
6. Cleaner work, no oil on yarn.
7. Increased tape life.
8. Reduced power consumption.

Disadvantages are enumerated

Georgia Mills' Spinning Practice

Mill	Warp Build	Traverse, Inches		Stroke, Inches		Ring, Inches		Full Bobbin Diameter, Inches		Yardage on Bobbin		Count		Shuttle Inside Diameter Inches
		Warp	Filling	Warp	Filling	Warp	Filling	Warp	Filling	Warp	Filling	Warp	Filling	
B	Combination	9	7	6 5/8	1 7/8	2 3/4	1 7/16	2 9/16	1 5/16	4,200	1,300	8.75	13.25	—
C	Combination	—	—	5 1/8-6 1/4	2	—	—	2 3/16-2 5/8	1 5/16-1 7/16	2,300-4,000	900-1400	7-12	7-22	1 7/16 & 1 1/2
E	Combination	—	—	5 1/2	2	2 1/8	1 5/8	2	1 5/16	4 oz	1 3/4 oz	10	7	1 3/8
G	Combination	8	—	—	—	2 1/8	—	2	—	4 oz	—	6-12.5	—	—
	Combination	8	—	—	—	2 1/2	—	2 3/8	—	6 oz	—	2.5-6.75	—	—
H-1	Combination	7 3/4	—	5 1/2	—	—	—	2 1/16	—	4 oz	—	12-30	—	—
H-2	Combination	7 1/2	7 1/8	5 1/2	1 3/4	—	—	2 1/8	1 3/8	2,450	330	12	5	1 7/16
H-3	Warp	—	7 1/2	—	—	2 1/8	—	—	—	0.255 lb.	—	4-16	—	—
I	Warp	7	7	—	1 1/2	2	1 3/8	1 15/16	1 5/16	5,100	2,600	31	41	1 3/8 & 1 7/16
J	—	—	8 1/4	—	1 3/4	—	1 3/4	—	1 11/16	—	7,496	—	48.5	—
L	Combination	—	—	5 3/4	1 1/2	—	—	2 1/8	1 3/8	6,720	1,874	25	25	1 7/16
M	Warp	—	—	9 1/2	2 1/4	—	—	2 5/8	1 1/2	5,900	1,200	17	17	1 7/16 & 1 1/2
N	Combination	7 1/2	6 1/4	5 3/8	1 7/8	—	—	1 11/16	1 1/4	4,520	2,880	32	40	—
P	Filling	—	—	2 3/4	1 7/8	—	—	2 3/4	1 7/8	2,452	515	7	7	1 3/8
	Filling	—	—	2 1/4	1 7/8	—	—	2 3/4	1 7/8	3,392	1,072	11	11	1 17/32
	Filling	—	—	2 1/2	1 7/8	—	—	2 1/2	1 7/8	3,893	1,472	15	20	1 3/8
	Filling	—	—	2 1/2	—	—	—	2 1/2	—	4,601	—	17	—	—
S	Combination[1]	—	—	6 3/4	1 3/4	2 1/8	1 3/8	2-2 1/16	1 1/4	4,200	—	14.5	—	1 3/8
	Combination[2]	—	—	5 3/4	2	2 1/8	1 5/8	2-2 1/16	1 3/8	3,612	—	14.5	—	1 19/32
T	Combination	—	—	8 1/2	6 1/2	—	—	—	—	5,600	—	31	—	—
U	Combination	—	—	5 1/8	1 5/8	2 1/2	1 9/16	—	—	4,850	1,440	13	12	—
V	Warp	9	7	—	1 7/8	—	—	2 5/8	—	5,700	1,210	14.5	12.25	1 1/2
W	Warp	—	—	8 5/8	7 3/16	—	—	2 5/8	1 1/4	3,687	1,663	9.5	22	1 11/32
	Warp	—	—	8 1/8	—	—	—	2 3/8	—	3,088	—	9.5	—	—
X	Combination	—	—	6 1/2	1 3/4	—	—	2 1/2	—	11 oz	1.6 oz	—	—	1 1/2
	Combination	—	—	6 1/2	—	—	—	2 1/4	—	7 3/4 oz	—	—	—	—
Z	Warp	9	—	—	—	2 1/2	1 5/8	—	1 7/16	5,115	1.75 oz	15	10	1 5/16 & 1 1/2
	—	—	—	—	—	—	1 5/8	—	1 7/32	—	1.04 oz	—	10	—
AA	—	—	—	8	1 3/4	2 1/8	1 7/16	2	1 9/32	5,300	2,250	23	26	1 5/16

1 9 1/8" paper tube
2 9" wooden bobbin

below:

1. High initial cost.
2. More difficult to plumb than conventional spindles.
3. Must be kept clean of yarn, otherwise they are hard to doff and will cause high bobbins with subsequent trouble in winding.
4. Bobbins sticking on spindle.
5. Rubber bases sometimes loosen next to lifter rods.
6. Vibration at starting up which tears down some ends.

Aluminum adapters had given satisfactory results in the three mills that reported using them. **Mill M's** experience is typical: "Our experience has been very satisfactory, except that these adapters break easily, especially if the doffers are careless. We have not had them in long enough to get a comparative maintenance cost, but the bobbin maintenance cost is much less with the aluminum adapters and paper tube bobbins than with the old blade spindles and wooden bobbins. Our packages were increased from 9¼ inches to 10 inches with this change-over, the speed is 8,475 rpm, and we can tell no difference in the yarn appearance, but we do get a neater package."

Barber-Colman Spoolers. Answers to a question concerning drum speed on Barber-Colman spoolers indicate that many Georgia mills run their spoolers at least 10 per cent faster than the speed that they consider ideal. Speeds reported range from 1,000 rpm for coarse, low-twist yarns, to 1,660 rpm in one instance on 21s yarn. The speed most commonly used for medium counts is 1,200 rpm.

Mill E uses a drum speed of 1,150 rpm on counts of 10s to 17.5s, but considers the ideal speed to be 1,000 rpm for these counts, and drops back to that figure when the flow of production permits. For rayon yarn, **Mill L** runs the drum on its spoolers at 1,150 rpm, which it considers the ideal speel.

Several mills reported having had trouble on the Barber-Colman spooler with a 2- to 5-inch kink about 18 inches above the knot on the cheese end. Ways suggested to cure this were:

Mill E—1. Rise roll can be too low. 2. Pressure lever spring can be too loose. 3. Yarn number weighing on heavy side, causing yarn to kink.

Mill F—We clean all suction tubes and slack arms with mineral spirits once each week, also keep close check on presser roll springs.

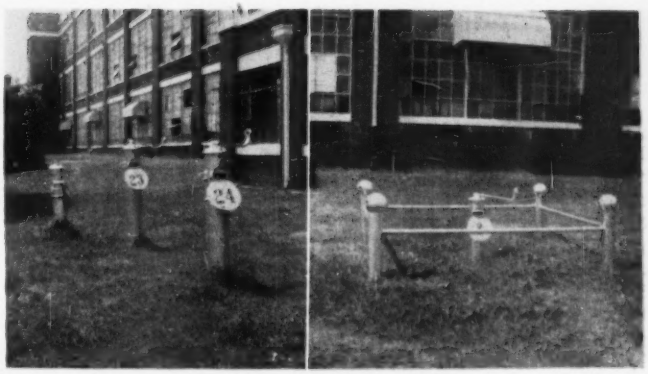
Mill H-2—We run only one yarn count per spooler. We have this trouble only when the count is heavy. To eliminate this condition, we try to keep our yarn count on the number.

Mill N—This is caused by the slack take-up tube that controls the end of the yarn on the cheese. When the rise roll is set at the speed and height supposed to eliminate this, it does not always do so. We move the rise roll up to make the cheese turn faster. This will eliminate kinks, but will increase end breakage. We have a special attachment on the back of the plate for the ends to fall on. This helps but does not eliminate the kinks.

Mill Q—We eliminated the kink in yarn by cutting an 8½" piece of ½" x 3/16" key steel and putting it on back of the plough so that it slopes down toward the drum, allowing this slope to pull out the kink before the cheese contacts the drum.

Mill R—The kink that shows up about 18 inches from the knot on the cheese is caused by the build of the bobbin and will happen on warp twist or greater on yarns being run from a combination wind. Even with the best of settings on your traveler slack control mechanism, you will get this kink if the build of the bobbin is not right for the kind of yarn being spooled. We think using warp wind on all yarns of 20s count and coarser, and 4.00 twist multiple or greater, will eliminate this kink.

Mill V—Kinks do form on the yarn between the suction tube and the cheese because of slackness in the yarn, and are more noticeable on heavier yarns. To combat this, we put more tension on the pressure arm springs, but the principal method is to have all frames doffed with the rail going down and approximately ⅓ of the way from the top of the last stroke. This causes tension on the yarn from the bobbin which tends to pull out kinks after the ends are tied.



Number and Protect Post Indicator Valves!

A numbering system for identifying sprinkler valve controls is desirable, especially where several valve controls are located close together like these at West Boylston Mfg. Co. of Alabama in Montgomery. It prevents wrong valves being operated in emergencies such as fire.

Where post indicator valves are located near a driveway, it is advisable to provide a guard of some type to prevent vehicles from damaging them. The guard shown in the right photo above, made at West Boylston, was built from scrap pipe by personnel of the plant shop.—*H. C. Norman.*

Be Prepared to Defend Your Expense Accounts, Tax Expert Advises

Businessmen are warned against letting publicity by the Internal Revenue Service "stampede them into abandoning entirely defensible practices" in connection with their personal expense accounts. This is the advice of Seymour Mintz, Washington tax expert writing in "The Journal of Taxation."

Mr. Mintz says "Government by blunderbuss has an effect just opposite to that intended: it intimidates those on the right side of the line and affects others not at all."

He gives a four-point program to help the businessman establish legitimate taxfree expense deductions:

1. Keep the fullest possible records of his business expenditures, showing the "occasion, nature and amount of expenditure, the persons present, and the business benefits anticipated."

2. Keep track of amounts spent which might be attributable to him or his family's expenses.

3. Where practicable, have employer reimburse him for actual expenses, rather than make him a flat allowance.

4. Make provision in employment contract, where practicable, of company policy, showing amount and type of expenses he shall be expected to bear.

"One might hope," concludes Mr. Mintz, "that ultimately both our tax system and our tax administrators would become less sophisticated or suspicious and more human as to some of these problems relating to executive compensation . . . Perhaps one day our tax statutes and our system of tax audits will recognize that the direct and indirect costs of maintaining the office of president of Harvard University and the office of president of General Motors Corporation are no more includible in taxable income of the incumbent than are the expenses of the President of the United States. Until that time, however, both the employer corporations and their executives had better be prepared to defend their actions."

Are You Familiar with the Labor Situation of Japan's Cotton Textile Industry?

There were 132 cotton spinning mills in Japan as of January 1954, employing 138,426 persons, approximately 80 per cent of which are female.

Most of the female workers are fresh graduates from the 9-year compulsory education. About 70 per cent are under 20 years old, and 90 per cent under 25 years old. Approximately one half quit their jobs between one and three years, and more than 70 per cent in five years.

Mills start up at 5:00 am and close at 10:30 pm daily. Two shifts of operatives work eight hours each, and personnel on each shift has a 45-minute recess over and above the eight hours of work. Operatives have one day off a week, working the other six. Besides there are up to ten holidays per year with pay. There are leaves for matrimonial, maternal, mourning occasions, and menstruation leaves, most of which are paid. Annual vacation with pay for about six to twenty days is also provided.

Average monthly pay of male employees for 205.9 working hours in November, 1953, was approximately $54; for female employees for 197.2 working hours, approximately $25.

Though there is some difference in practices of the various mills, all the charges for facilities (housing, provisions, physical training, recreation, education, health and hygiene instructions, etc.), except some for food and boarding, and all of the union dues are provided by the company. The companies' expenditure on such facilities amounts to as much as 20 per cent of the average wages of the operatives individually.

PRE-DRYER

Staff Prepared

EXCLUSIVE

IN MAKING tickings at one large Georgia cotton mill, wet dye beams are put into the creel at the slasher. These beams contain about 70% moisture. This condition weakened the size solution by diluting it so much that it was necessary to dump the size from the size box after slashing each warp.

The superintendent at this mill, solved the wasteful problem by devising an extra stack of drying cans and installing the unit between the slasher creel and the size box. This arrangement removes the excess moisture from the wet dye beams before they reach the size box (see accompanying illustration).

The stack of drying cans consists of four 30″ cylinders and one 5′ slasher cylinder. All parts were purchased by the mill and assembled by the mill shop crew. The mounts for the stack are made of angle iron, and the cans are driven by the pull of the yarn — there is no positive drive on the stack.

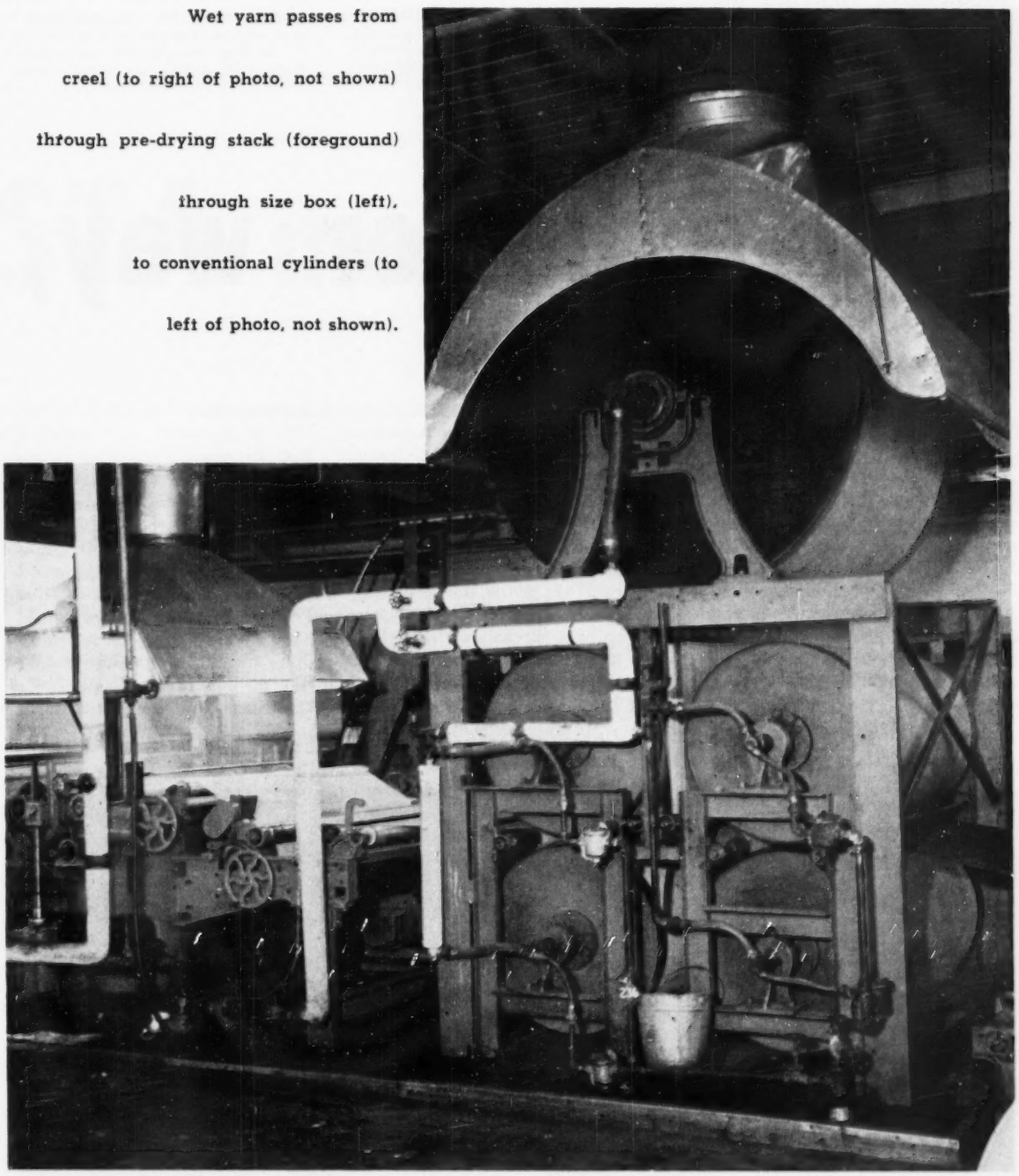
A check on the amount of stretch at this point showed less than ½ of one per cent, a negligible amount in this instance. Before the drying cans were installed, too much size was wasted (about 15 gallons per hour), and the warps were not uniformly sized. Upon first starting a warp, the size was fairly heavy, but as the warp progressed the size became lighter as a result of the size dilution from the wet dye beams.

Now quality is much improved and no size is wasted by dilution. Standard size regain is now 10-11% (based on dry weight of warp), and the stack has more than paid for itself in terms of improved quality as well as savings in size.

Slashing Wet Sets

PREVENTS SIZE DILUTION

Wet yarn passes from creel (to right of photo, not shown) through pre-drying stack (foreground) through size box (left), to conventional cylinders (to left of photo, not shown).



PROGRESSIVE THINKING and positive psychology are essential to improve the industrial status of the South, Reese Hart of the South Carolina Development Board said.

DEVELOPMENT OF ADEQUATE LEADERSHIP is industry's greatest need, H. K. Hallett, vice-president of Kendall Mills, pointed out to the group in his address.

COORDINATION between financial and manufacturing divisions is needed in the textile mills, Harold W. Smith, secretary, Cone Mills Corp., told the group.

Find a better way,

Staff Report

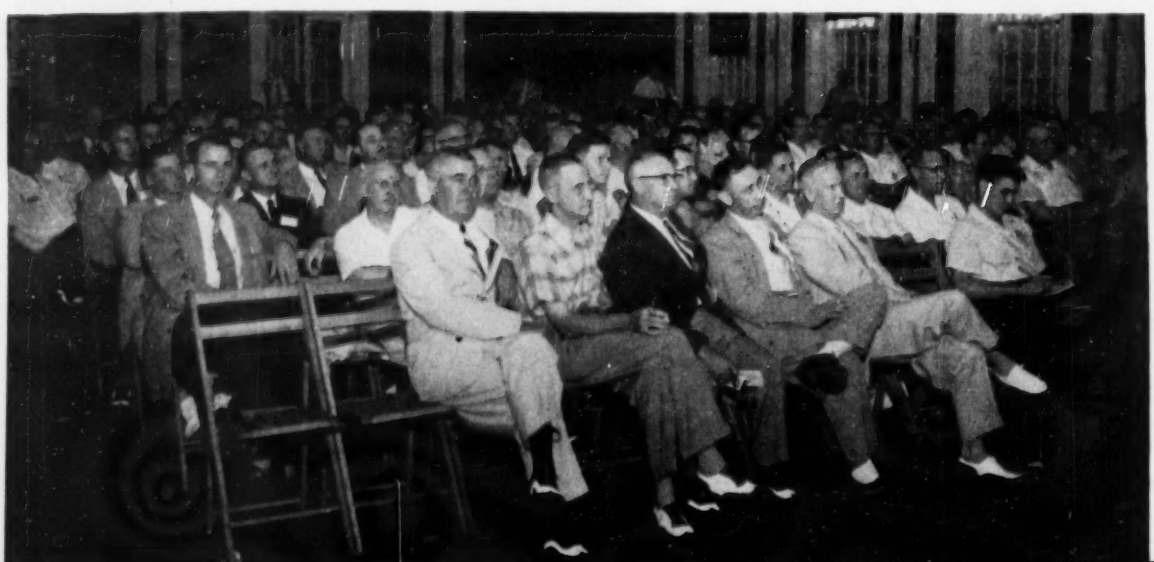
THE 45TH annual convention of the Southern Textile Association was held at Ocean Forest Hotel, Myrtle Beach, S. C., and was attended by more than 200 members. J. L. James, manager, Erwin Mills, Cooleemee, N. C., was elected to the presidency of the Association, succeeding T. I. Stafford, production manager, Clifton Mfg. Co., Clifton, S. C., who was elected chairman of the Board of Governors.

Seek Better Way. T. I. Stafford, retiring president of the Association, told the group that there seemed to be little doubt about there always being a great textile industry. The question is: Will the textile industry be kept in the South? The answer to this question appears to lie in the theme of the textile meetings—"there is a better way to do it, and we will find what it is." Mr. Stafford indicated that with a continuation of this spirit the textile areas would continue to prosper.

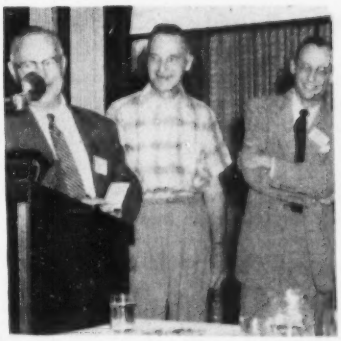
S. C. Progresses. Speaking on the advantages South Carolina offers the textile industry, Reese Hart of the South Carolina Development Board told those attending the opening business session on Friday morning that the two aims of the development board were: (1) to provide more jobs for more people, and (2) to put more money in the pockets of the people.

Mr. Hart pointed out that pro-

MORE THAN 200 TEXTILE MEN attended the three-day convention at Myrtle Beach, South Carolina.



SHORTAGE OF TRAINED MANPOWER exists in scientific and technological areas, said the Honorable Walter Williams, Undersecretary of Commerce.



CITED for meritorious service to the Association were Junius M. Smith (center) and James McAden Jr. (right) both of Charlotte. John Foard (left) presented gifts.

RETIRING PRESIDENT T. I. Stafford (right) received a silver tray for his services to the Association. Presenting gift is J. L. James, incoming president.

STA members told

gressive thinking and positive psychology are essential to improve the industrial status of the South. Continuing, he said that the people in the South have the spirit that built America, and more productivity per man and per manhour is a keynote that attracts industry to provide jobs for people.

In closing, Mr. Hart predicted that all of the textile industry would be in the South before long, and he indicated that new scouring and top making facilities in South Carolina should provide additional encouragement for the woolen and worsted segments of the industry.

Trained Executives Needed. The session was concluded with an address by H. K. Hallett, vice-president of Kendall Mills and past-president of the American Cotton Manufacturers Institute. Mr. Hallett emphasized that industry's greatest need is the development of adequate leadership. In view of the astounding growth of industry, training of executives has been largely hit-or-miss, he said.

Our strength in any show-down depends upon the strength of our leadership, and by 1975 the textile industry will be at least 70% larger than it is today; therefore

ON THE GOLF COURSE: (left to right) A. R. Marley, Erwin Mill No. 2, Erwin, N. C.; J. Clyde Kelly, Textile Specialty Co., Greensboro, N. C.; J. K. Bruton, Erwin Mills No. 5, Erwin, N. C.; Harold Suggs, Howard Brothers, Gastonia, N. C.; Leon Jones, Odell Mill Supply, Greensboro, N. C.; M. L. Brackett, Highland Park Mills, Charlotte, N. C.; Bill O'Steen, A. E. Staley Mfg. Co., Greenville, S. C.; W. H. McKeown, Highland Park Mills, Charlotte, N. C.

Canadian Textile Industry Problems Cited

Canadians do not have to look to the United States or anywhere else for top quality and high styling in science, or manmade, textile fabrics, E. F. King, retiring president of the Silk and Rayon Institute said in his report to the annual meeting of the Institute at the Windsor Hotel in Montreal recently. Mr. King said that while the present state of the Canadian science textile industry was unfavorable "I do not wish to paint a completely gloomy picture nor . . . give the impression that the industry as a whole is marking time and waiting for the government or any outside agency to solve all its problems."

What the industry needed and felt entitled to, he said, was "reasonable consideration . . . . given to the problems of higher-cost operation and a comparatively small market which beset not only the textile industry but the majority of Canadian domestic manufacturing industries."

For its own part, he continued, the Canadian industry was doing everything in its power "by efficient production and modern, aggressive sales and merchandising methods to produce good quality textiles, well-styled and sold at the best possible prices."

Basically, he said, the problems of the Canadian textile industry stemmed from the high cost of operation, a limited market, and tariff and international trade policies that allowed unfair competition from countries with much lower wage rates or, in the case of the United States, with mass-production techniques made possible by a huge domestic market.

we must study markets, trends, and population figures to anticipate various requirements, he said.

On the question of how much training, Mr. Hallett indicated that the best executives have technical know-how, but they also have "liberal education" and understand culture, people, history, and the elements in everyday life that are so important in solving day-to-day problems. A program adopted by several leading educational institutions includes three years of study in liberal arts and two years of technical training.

If the junior executive trains under the senior executive, much depends upon: (1) nature of the confidence placed in the junior; (2) counsel received from the senior; (3) team feeling created by the senior. A major consideration is: Does the job have a qualified understudy? Successful job performance is what we seek, Mr. Hallett concluded.

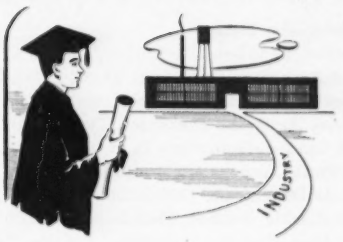
Understanding Between Financial and Manufacturing Divisions Needed in Textiles. Better understanding of the inter-relationship and inter-dependence of the financial and manufacturing divisions of the textile business is essential if the enterprise is to prosper, Harold W. Smith, secretary, Cone Mills Corp., told the Saturday morning business session. Keeping the overall picture of the company's business in focus so that each specialist can see where he fits in with and needs the advice and help of the other specialists is one of the most pressing problems that faces industry today, Mr. Smith said.

Shortage of Trained Men. The Honorable Walter Williams, Undersecretary of Commerce, told the audience that this country is confronted with an alarming shortage of trained manpower in scientific and technological areas. Compared to Russia's 43,000 engineers graduated in 1953, only about 19,000 American engineers will be graduated this year. It will take teamwork to move steadily forward in the technological field, he said.

Elections. J. A. Chapman Jr., Inman Mills, Inman, S. C., was elected first vice-president of the Association, and H. C. Estes, Pacific Mills, Rhodhiss, N. C., was elected second vice-president. Elected to the S. T. A. Board of Governors were: J. R. Meikle, Rosemary Mfg. Co., Roanoke Rapids, N. C. (re-elected); Walter Vincent, Dan River Mills, Inc., Danville, Va.; J. P. Carter, Spartan Mills, Startex, S. C.; and W. B. Etters, Laurens Mills, Laurens, S. C.

BINGO (left), proved to be a popular pastime for mill men and their wives who attended the meeting. On the beach: (left to right) W. A. Thomason, Saco-Lowell Shops, Greensboro, N. C.; Bill Bailey, Corn Products Sales Co., Charlotte, N. C.; J. M. Adcock, Corn Products Sales Co., Greenville, S. C.

CONGRATULATIONS, GRADUATES!



BEGINNING on this page and continuing on pages 128, 129, 131, and 133 are the names of those who this year graduated from the textile schools at Alabama Polytechnic Institute, Bradford Durfee Technical Institute, Clemson College, Fairleigh Dickinson College, Georgia Institute of Technology, Institute of Textile Technology, Lowell Technological Institute, North Carolina State College, New Bedford Institute of Textiles and Technology, Philadelphia Textile Institute, Rhode Island School of Design, Texas Technological College, and the two Canadian schools —Ecole des Textiles de Saint-Hyacinthe and The Provincial Institute of Textiles.

Firms by which they have been employed appear immediately after the graduates' names if known at the time the information was compiled by the schools. Again this year a large number were required to go into the armed forces and this is indicated by the word "Military" following a name.

Congratulations to all of you who have chosen the textile manufacturing and associated industries for your life's work.

Our wish for all of you is much success and happiness.

For those going into the armed forces we also wish an early and safe return.—The Editors.

Alabama Polytechnic Institute

Harold B. Williams, Chemstrand Corp.
Jude M. Swint, Chemstrand Corp.
William J. Kitchens, Military
James S. Murray, Riegel Textile Corp.
James H. Yon, Jr., Military

Clemson College

Jimmie P. Anderson, Inman Mills
Thomas R. Anderson, Military
Thomas F. Ballentine, Military
Theodore A. Banz, Military
Bruce J. Bishop, Military
Carl B. Brabham, Military
Harold E. Bradberry, Military
Thomas B. Bradley, Avondale Mills
Robert S. Calabro, Burlington Mills Corp.
Forrest G. Calvert, Military
John S. Carlisle, Jr., Military
William J. Chagaris, Military
Benjamin K. Chreitzberg, Jr., Kendall Mills
Zeddie L. Collins, Union Bleachery
Jack Dale Cox, Military
Louis G. Darby, Union Bleachery
James E. Duffy, Orr Mill
Herbert W. Elrod, J. P. Stevens & Co.
Leon E. Fersner, Jr., Graniteville Co.
Anthony L. Fousek, Orr Mills
Max U. Gainor, Burlington Mills
Ralph A. Gallucci, Military
Charles C. Grady, Jr., Burlington Mills
Joseph M. Granade, Graniteville Co.

Clemson (continued)
Newell F. Gravely
James Gary Gray, Riegel Textile Corp.
Joseph E. Hanna, Reeves Bros., Inc.
James E. Harris, Greenwood Mills
Adolph P. Hearon, Hartsville Cotton Mill
Edward M. Hefley, Military
Clyde O'Neil Howie, Military
Heyward C. Hurt, Union Bleachery
James A. King, Jr., Sonoco Products Co.
Lewie C. King, Military
William D. Knight, Burlington Mills
Allen C. Livingston, Military
Joe S. Long, Military
Thomas A. McCullough, Hatch Mill
John T. Messer, Riverdale Mills
Roger W. Miller, Military
Joseph T. Mitchell, Muscogee Mfg. Co.
Robert T. Mitchell, Burlington Mills
William F. Moore, Jr., Pacific Mills
Davis T. Moorhead
George R. Morgan, Jr., Kendall Mills
Emmette S. Murray, Military
James G. Parnell, Burlington Mills
Herbert H. Pearson
Jackson M. Quinn, Avondale Mills
Joe E. Ramsey, Avondale Mills
Claude D. Sawyer, Avondale Mills
James L. Shaw, Avondale Mills
Thomas P. Sims, Military
Charles B. Simpson, Jr., Union Bleachery
Harry L. Smith, J. P. Stevens & Co.
Jefferson D. Snead, J. P. Stevens & Co.

Clemson (continued)

Harry S. Thomas, Jr., Union Seminary
Dick M. Vaughan, Military
Robert P. Whitener, Military
Henry R. Williams, Clearwater Finishing Plant
Robert R. Willis, J. P. Stevens & Co.
George S. Wise, Jr., Deering, Milliken & Co., Inc.

Ecole Des Textiles De Saint-Hyacinthe

Marc-Andre Barosy
Leonard Beaulieu, Dominion Textile Co., Ltd.
Yvan Beaulieu, Dominion Textile Co., Ltd.
Marcel Bellehumeur, Dominion Textile Co., Ltd.
Laurier Brunelle, Dominion Textile Co., Ltd.
Paul Cardin, Dominion Textile Co., Ltd.
Leo-Paul Carpentier, Dominion Textile Co., Ltd.
Claude Desmarais, Dominion Textile Co., Ltd.
Jean-Claude Genest, Dominion Textile Co., Ltd.
Jean-Guy Giroux, Dominion Textile Co., Ltd.
Marcel LeFevre, Grad. School, Ecole des Textiles, St. Hyacinthe
Robert Mailly, Bruck Mills Ltd.
Lawrence McDonough, Dominion Textile Co., Ltd.
Henri Paradis, Dominion Textile Co., Ltd.
Robert Paradis, Dominion Textile Co., Ltd.
Gaston Picard, Dominion Textile Co., Ltd.
Albert Pinard, Dominion Textile Co., Ltd.
Robert Plasse, Dominion Textile Co., Ltd.
Tran Van Toan
Beaudoin Gaston, Julius Kayser & Co., Ltd.
Claude Bernard, The Regent Knitting Mills Ltd.
Louis Dragon, Chatelaine Hosiery Ltd.
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a mill report on

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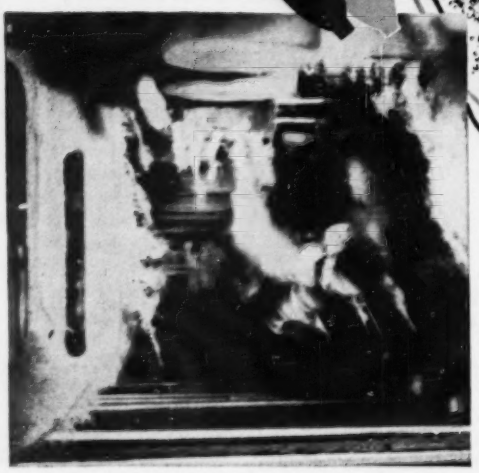
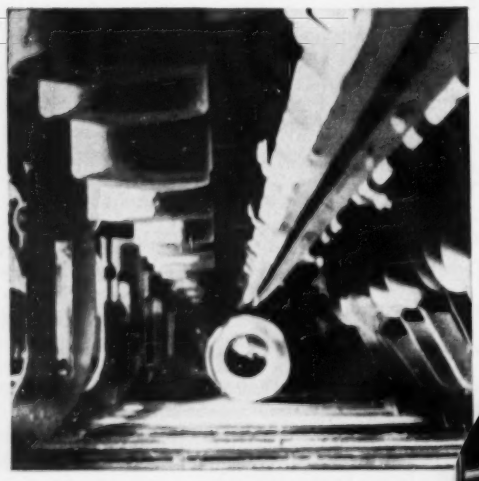
underframe cleaning



Without underframe cleaner lint accumulated required "blow-off" every 4 hours.



With underframe cleaner this frame required 83% less "blow-off".

This report covers four carefully controlled tests **with** and **without** American MonoRail Underframe Cleaners in a mill running on 13.90/1 warp yarn.

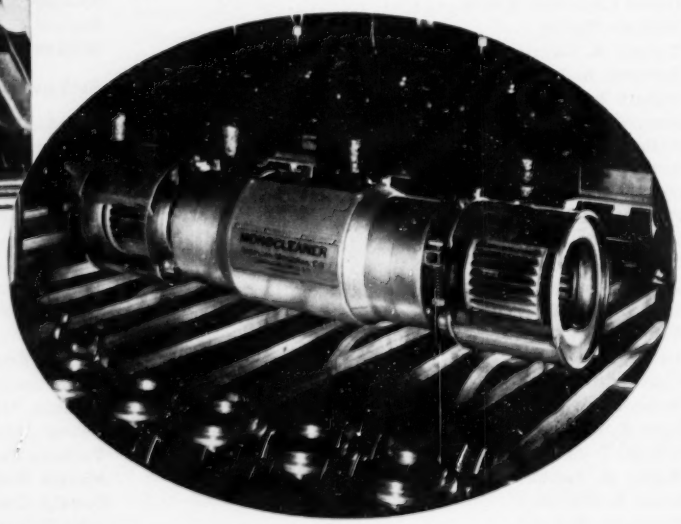
Spinning tests extending through 495,742 spindle hours showed 83% less "blow-offs" required with cleaners. This indicated a saving of 60 man-hours per day.

On 66,600 spooler bobbins the test showed 9% reduction of reties for yarn from frames with underframe cleaners.

A slub and gout count covering 16,479 yards of cloth showed 68% increase in average yards per gout.

Also noted in this report was the clean appearance of the spinning room where underframe cleaners operated, requiring less frequent sweeping.

This report can be studied in detail by calling one of our engineers. Let him help you with your cleaning problems.



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HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
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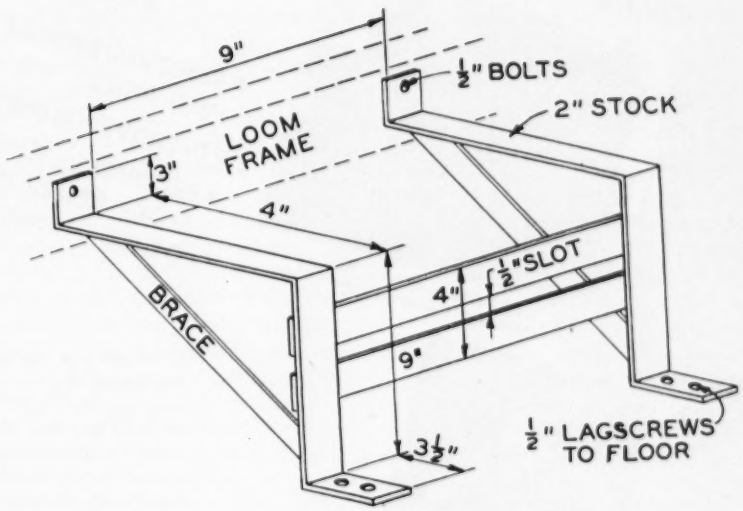
Weavers-Modernize Those Small Beam Heads

EDITOR TEXTILE INDUSTRIES:

A kink that might prove handy to anyone planning to enlarge the beam heads on old model looms was adopted in our mill.

When we switched from 18" heads to 22" heads, it was necessary to make a larger beam bracket to get the beam away from the loom frame. This change made it necessary to alter the position of the weight levers. To do this, we built a frame (shown in accompanying illustration) which is bolted to the loom in the same position as the original lever. This frame can be moved in the slot in the loom, and the weight lever can be moved several inches in the plate on front of the frame. This makes it easier to change from wide to narrow warps and back again.

The frames have the advantage of being out of the way, and they can be made at low cost from scrap metal. They are made from 2" x ¼" flat stock with the original lever plate welded in the center.



Some mills overcome the difficulty by putting weight levers on the floor on a sliding plate or by fastening them to the floor. This is not a good practice because the lag screws work loose. Also, the levers are in the way.

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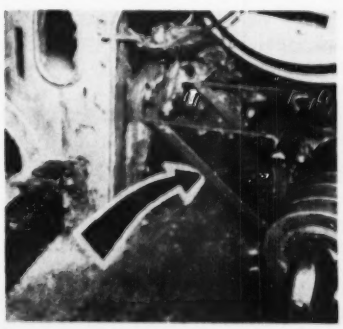
Close-up photo of the beam bracket.

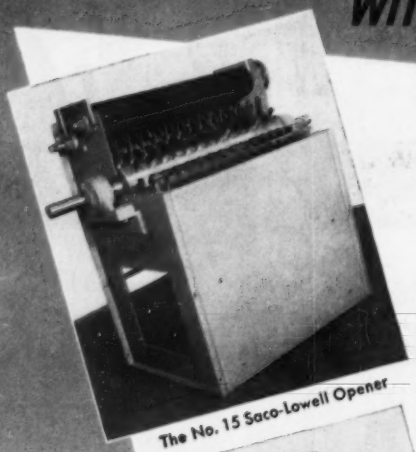


Do Carding Beaters Damage Cotton?

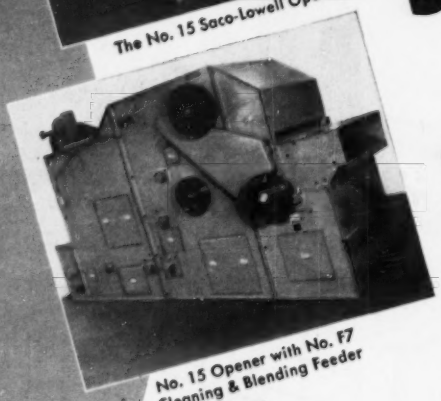
EDITOR TEXTILE INDUSTRIES:

In your May issue [pages 104-107] you have an article from a well-known research organization on how mill processing affects cotton cellulose, and in that article the authors stated that running cotton through a carding beater had an injurious effect upon the stock. This confirms the opinions of many in the industry, because it has long been known that carding beaters used on cotton containing a quantity of motes and

INCREASE THE EFFICIENCY OF YOUR OPENING ROOM WITHOUT EXTRA OPERATING COST



The No. 15 Saco-Lowell Opener



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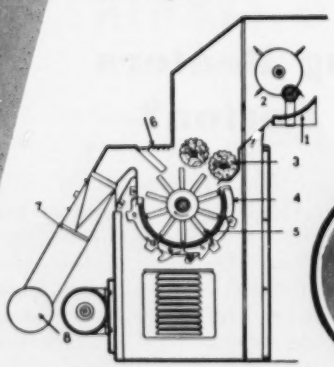
In *actual test* the new Saco-Lowell No. 15 Opener increased the amount of waste extracted by the opening line from 1.245% to 1.560%, an increase of 25.3%. This marked increase during the first cleaning process resulted in the removal of heavy impurities which heretofore were broken up and powdered, thereby making later extraction difficult and costly.

Increased cleaning in the opening line can be attained with the installation of the Saco-Lowell No. 15 Opener.

A *technical bulletin* describing the new Saco-Lowell No. 15 Opener is *available on request.*



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leaf trash cause excessive neppiness of the yarn and break up the leaf trash into fine, peppery stuff.

The nature of the injury reported in this article would seem to indicate that not only did the carding beater make neps and pepper trash, but that it actually degraded the cotton fibers to a considerable extent. This is a question about which there has been a great deal of argument over the years.

Many years ago the fine yarn mills in New England tried carding beaters on their finisher pickers, and practically every one of these beaters was removed because the mills using them reported that they greatly increased the neppiness of the yarn. This increase in neppiness was probably due to the fact that 40 years ago very little opening and cleaning machinery was used in American mills, and the pickers and cards were depended upon to do all of the cleaning.

This cleaning consisted almost entirely of the removal of motes, because very little dirty cotton was ever seen in an American mill prior to about 1915. Naturally, therefore, the finisher picker received the cotton with lots of motes in it, and the carding beater promptly ground up these motes so that so many neppy particles were presented to the cards that they could not deliver a clean web.

As more and more cleaning machinery has been installed by cotton mills, the percentage of motes reaching the finisher section of the picker has gone down, and most fine yarn mills today, as well as practically all coarse mills, use the carding beater in the finisher.

The carding beater will make a smoother felted lap than either a blade or cylinder type beater, and probably the only reason for the popularity of the carding beater is the fact that it does make a smooth lap. Certainly, it could be expected to break up motes and leaf trash and cause trouble with neps and pepper in the card web, but nearly all mills use the carding beater because the advantage of a smooth, well-felted lap is believed to offset the disadvantage of the carding beater's harsh action on motes and easily breakable foreign matter like leaves and grass.

All manufacturers of carding beaters for many years have recommended against their use in almost every case except in the finisher section of a picker. Exceptions would be on colored or bleached work where a carding beater in a breaker or intermediate section is needed to open up the tightly matted cotton coming from the dryer.

The fact that the makers of these beaters have not recommended them for use in breaker pickers on natural cotton, or in opening machines, and the damage reported by the authors of your article, make it somewhat confusing to understand why certain new cotton opening machinery is designed to receive cotton directly from the blending feeders and put it through a carding beater with some saw cylinders provided with sharp teeth directly under the beater. It is a little disquieting, after being told for 30 or 40 years that the carding beater is highly injurious when used on cotton full of loose trash and motes, to find that it is now being recommended as the first element of a cotton opening and cleaning line.

Perhaps the authors of your article could throw a little more light on this matter, and it is certainly something that superintendents and boss carders in cotton mills would like to know more about.

CONTRIBUTOR NO. 8695

EDITOR TEXTILE INDUSTRIES:

We have given careful consideration and study to the comments by your CONTRIBUTOR NO. 8695 concerning the article on page 104, May, 1954, entitled "Here's How Mill Processing Affects Cotton Cellulose." We are quite familiar with this project, which we have followed from its very inception. As a matter of fact, we contributed a great deal of effort toward the execution of the project, so I am in a position to know all of the details concerning the preparation of the samples used to determine the degradation in the fiber at the various processes.

The cotton stock used for testing did not go through an opening line. It was taken directly from the bale, placed in the hopper of a one-process picker, and made into a lap. Under these conditions, there was no appraisal made of what would happen to the fiber in the opening room, so any degradation as a result of opening and cleaning has been charged to the picker which, in our opinion, leaves a loose end to this project.

Your correspondent has made certain comments concerning the action of the carding beater, based upon a careful study of the past history of the carding beater as it was used many years ago, but has evidently overlooked the fact that the conditions prevailing today are entirely different.

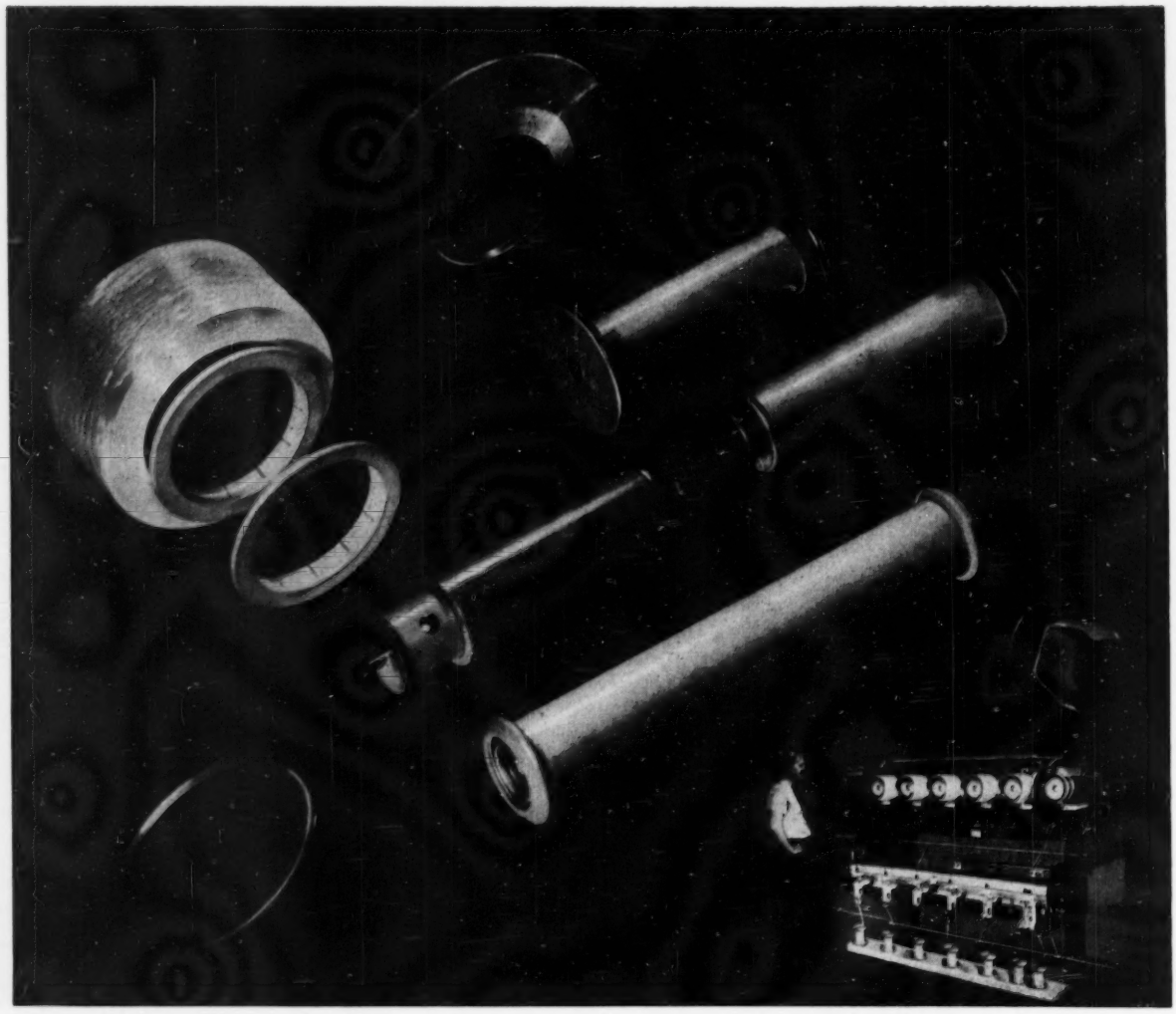
In the period to which he referred, there was practically no opening machinery. The cotton was placed in a bale breaker, which was sometimes followed by a dust trunk and then by a No. 7 or a No. 9 porcupine opener. Naturally, this inadequate cleaning resulted in the transfer of the heavy impurities and pepper trash from the bale to the breaker picker, where the blade beaters broke up the larger aggregates into the smaller pieces so hard to remove. When this matted cotton reached the carding beater, there was naturally a lot of pulling and tearing which did not improve the appearance or spinnability of the cotton.

Do not overlook the fact that

Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: Editor "Textile Industries," 806 Peachtree St., N. E., Atlanta, Ga.



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these carding beaters were operating at a speed of 1500 rpm, that the production was about 200 to 250 pounds per picker, and that from our modern standpoint, the cotton was in a very poorly prepared state. Furthermore, the carding beater as used in the beater section of the picker is a very fine pin carding beater, that is, a fine pin on a close gauge is used.

The carding beater used in the new No. 16 Opener is entirely different because there is a much coarser wire on wider settings. This beater runs at the standard speed of 670 rpm and the production is 1,050 pounds per hour. The stock delivered by the feed rolls in the No. 16 Opener to this new carding beater is well opened, efficiently blended, with at least 50% of the heavy impurities removed in the F-7 Cleaners and in the No. 15 Openers.

We have no doubt that there might be a slight amount of measurable degradation caused by this beater, but, on the other hand, we have very convincing evidence from a satisfactory number of mill trials that the stock, as far as its end use is concerned, seems to be quite satisfactory. As a matter of fact, we know of a combed yarn mill which was so well pleased with the effects obtained with the No. 16 Opener that they put carding beaters in the two sections of their one-process picker and are now making the cleanest yarn and the most even combed yarn cloth that they have ever made.

An inspection of the laps produced on the picker fed by a modern cleaning range shows a firm, even selvage; a very uniform distribution of the stock; a complete absence of large aggregates, lumps and curls; and a lap so fluffy and so well prepared that the improvement of the card sliver is quite noticeable.

Your correspondent need have no fear whatever that his stock, whether carded or combed, will suffer any damage by this carding beater. In fact, if he is using compressed cotton or doing any blending, he will find that the end results completely justify its use.

A. K. LANDAU
Saco-Lowell Shops

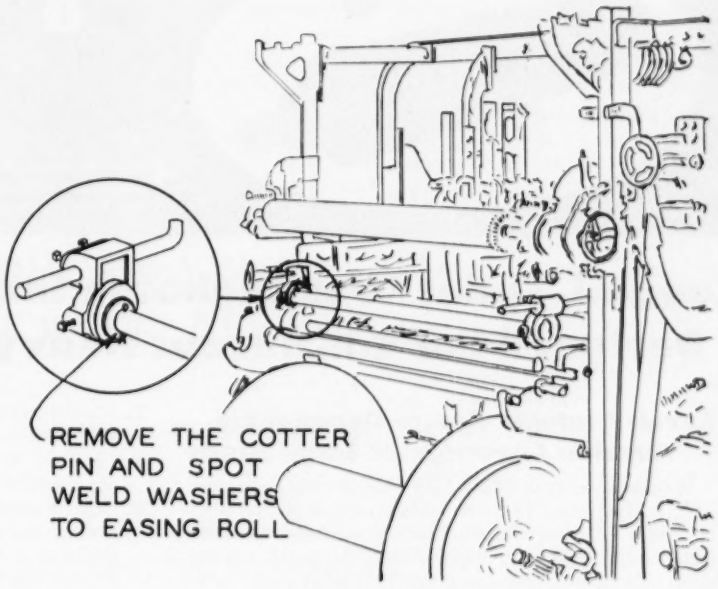
How to Make Easing Roll on Terry Looms Turn Freely

EDITOR TEXTILE INDUSTRIES:

The washers on the easing roll on the C3 and C5 terry towel looms often work against the cotter pins and stop the roll from turning freely. These washers frequently get lost.

When the beams are changed, we overcome the difficulty by removing the cotter pin and spot welding these washers to the easing roll, as shown in the accompanying illustration.

CONTRIBUTOR No. 8650

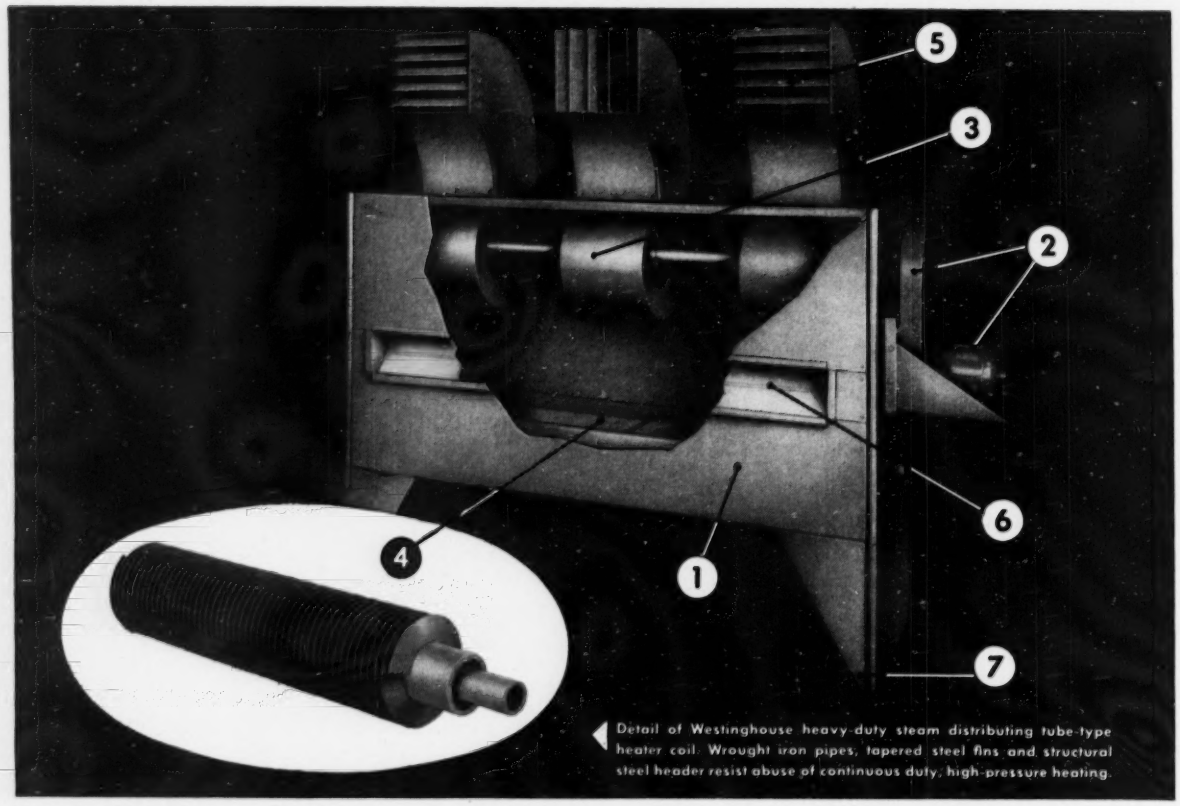


Readers Answer Question on How to Weave Glass Fabric

Subject Briefed: *Is the Modified D Draper loom or the XD Draper preferable for weaving the following fabric: 40 x 28, 38", 1 to 3 lb/sq yd, 25/2 spun glass warp, 50/2 spun glass filling, crowfoot weave? What other equipment will we need, and what troubles should we expect?* (CONTRIBUTOR No. 8662, *June*, 1954.)

EDITOR TEXTILE INDUSTRIES:

For best running conditions, weaving the fabric described by CONTRIBUTOR No. 8662, the XD loom is needed. The loom should be set up the same as for weaving filament rayon. We mean by this that the loom should have a small shuttle, 7⅜" or 8" bobbins, take-up roll covered with rubber or



Detail of Westinghouse heavy-duty steam distributing tube-type heater coil. Wrought iron pipes, tapered steel fins and structural steel header resist abuse of continuous duty, high-pressure heating.

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some type of composition, rubber temple rolls, and selvage post attachment, or some attachment similar to that used for weaving loop selvages.

We recommend for 38" goods a 40" XD model loom, and for 50" goods a 50" XD loom. Narrower goods can be woven than the nominal width of the loom, but the mill would be subjecting itself to trouble when it runs, for instance, a 40" fabric on a 50" loom, because of the difficulty to be had in controlling the filling between the selvage and the shuttle boxes.

The question is raised as to what trouble to expect when weaving spun glass, and we might say that all mills have trouble with this construction. The main one is excessive filling breakage at the selvage. We know of a southern mill that has an attachment for weaving a construction similar to a loop selvage, and we understand that a New England mill has tried this on spun glass, finding it very effective in helping to eliminate filling breakage at the selvage.

With reference to the question as to the extra equipment needed for weaving spun glass, none would be required except take-up roll covering, etc., as mentioned.

CONTRIBUTOR No. 8698

EDITOR TEXTILE INDUSTRIES:

In answering the question posed by CONTRIBUTOR No. 8662, with reference to the type of loom to weave glass, definitely the XD Drapers would be preferable to the Modified D Drapers. The extra loom equipment needed would be selvage posts and rubber-covered sand rolls.

The troubles to expect are jerked-in filling, and tight and loose selvages.

CONTRIBUTOR No. 8699

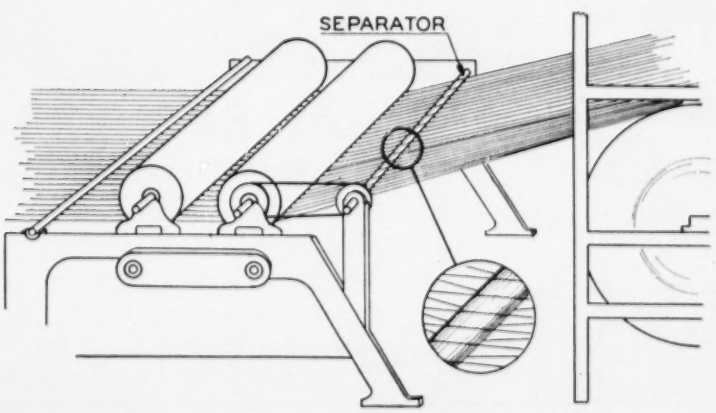
Try This Split Rod to Prevent Staining at the Slasher

EDITOR TEXTILE INDUSTRIES:

We have had trouble with different colored yarns bleeding onto white after the threads have passed through the size box and just before getting to the slasher cylinders.

We discovered that if the colored yarn is separated from the white before going onto the drying cylinders, the color does not bleed onto the white. Therefore, we installed a small rod between the threads to separate the two colors, and no further difficulty has been experienced. The accompanying sketch shows the location of the separator rod.

CONTRIBUTOR No. 8592



Easy Way to Assemble XD Loom Friction Plate

EDITOR TEXTILE INDUSTRIES:

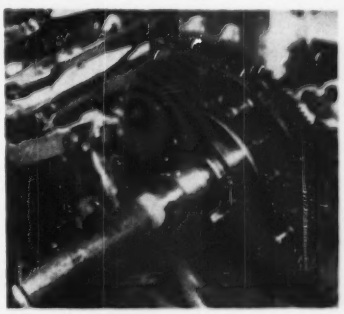
Our XD looms have been running on heavy work for approximately six years. A bobbin of filling only lasts a couple of minutes in these looms. Consequently, the two main drive gears are developing a thin place for several inches on both gears, and we are changing them at every opportunity. Two men are required to do the job. In assembling the parts, the most time was required in driving the friction plate into place. We used a wood block to do this job, and the block frequently split.

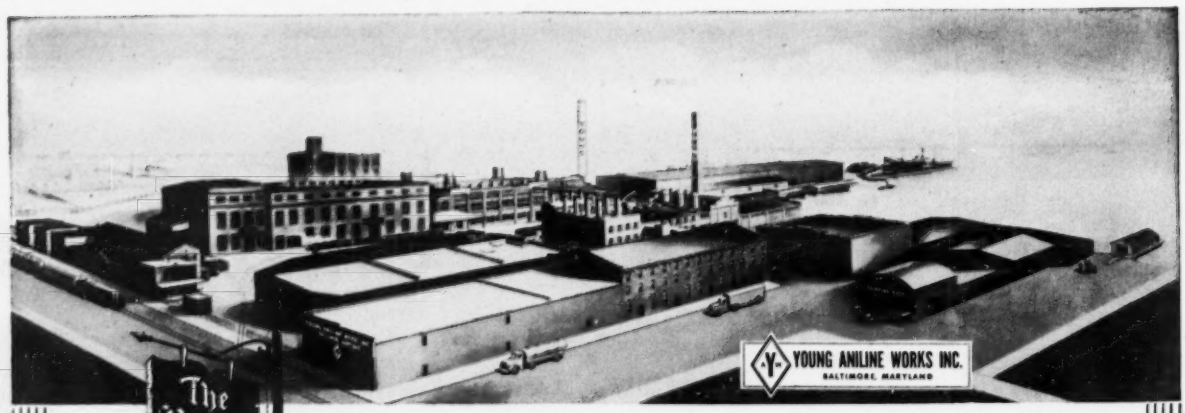
Considerable time and effort have been saved in fixing these looms by a simple kink. I cut a piece of pipe that was slightly larger than the shaft and also a few inches longer than the distance from the end of shaft to the clutch plate when the plate was in the right position. A sledge hammer was used on the other end.

Now one man may easily drive the clutch plate into position without damaging it. The pipe contacts the clutch plate completely around the shaft, and less hammering is required to force the plate into correct position.

When the pipe is not in use, I slide it over the handle of the sledge hammer where it stays until the combination is used again.

CONTRIBUTOR No. 8689





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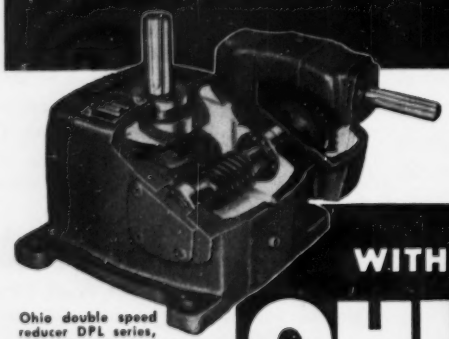

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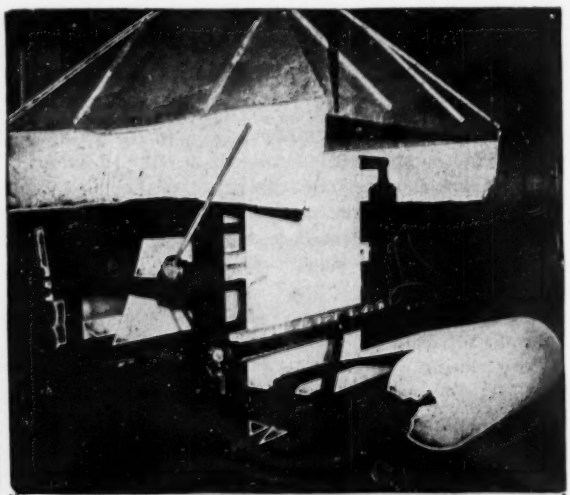

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Speed Up Cloth Inspection with This Easily Made Machine

EDITOR TEXTILE INDUSTRIES:

I made an inspecting machine for use in our weave room, and only spare lumber and old loom parts were used. The machine is handy and cost very little.

Our inspection is all done in another room, and it was necessary to run upstairs every time a cut of cloth had to be examined. The machine was built to save time for everyone who may have to examine cloth from time to time.

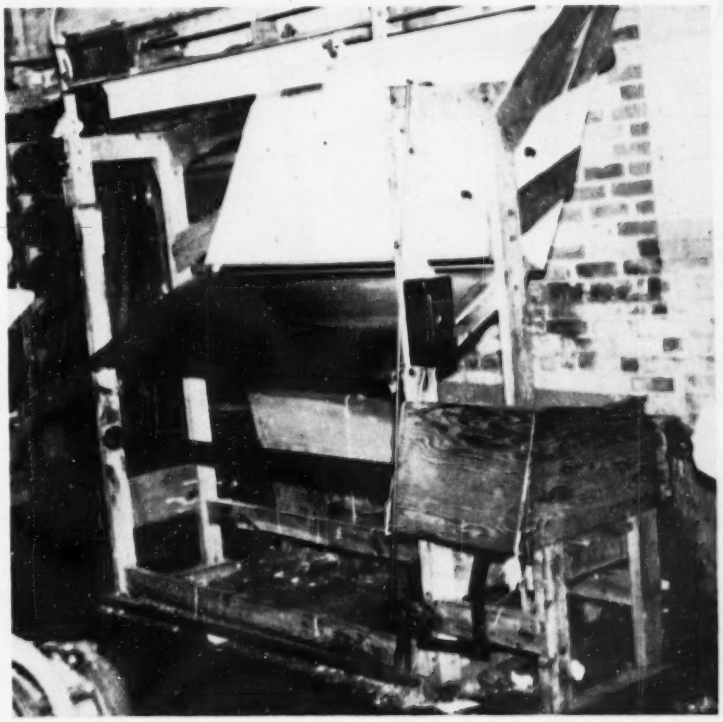
Materials needed for the job include 50 feet of 2″ x 4″ and 12 feet of ½″ x 1½″ lumber. The smaller lumber is used for an addition on top front to hold front light. The light box is made of plywood and is six inches deep, 35 inches long, and 66 inches wide (see accompanying illustrations). The box contains six fluorescent lights placed in staggered positions.

The box is fastened to 2″ x 4″ members by three boards on each end, and the top one is used as a support for a rod over which the cloth rolls. This rod turns freely in pillow blocks. A rod which turns is also fastened to 2″ x 4″ supports near the table to keep cloth close to table; the cloth goes underneath this rod.

The cloth roller is square on the drive end. The other end compresses a spring which is inserted in a piece of 1½″ pipe (see illustrations). The cloth box was made from an extra bench from our lunch room. We merely fastened a box to the top.

The treadle is held up by a spring and works from a clutch in the motor box. The motor box is made from plywood, measures 22″ x 20″ x 14″, and is set on a base made of 2″ x 4″ material.

The table is made of 1″ hardwood 23″ x 70″, and a ¾ hp loom motor supplies the driving power. The intermediate drive consists of

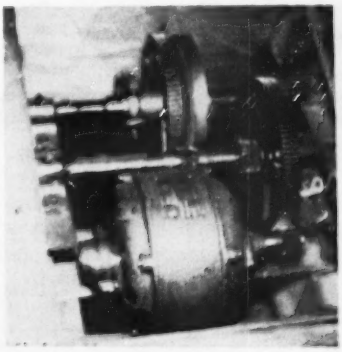


an old C&K intermediate gear and a loom motor pinion fastened to an inch piece of shafting (see illustrations). This pinion is drilled out, and a sleeve is inserted and pinned to the shaft. The clutch is an old loom gear with a shoulder welded to it. The other end of the shoulder is turned down ½″ to accommodate clutch parts.

The clutch parts include two ½″ strips of brass bent to shape with ½″ brass pins welded to one end and a small square block uniting them at the top. A 1½″ piece of flat steel was then welded and bent to shape and fastened to top part of the clutch and extended down to the treadle.

The clutch plate is an old gear with the teeth turned off. A piece of fiber is bolted to the spokes, and a piece of heavy emery cloth is glued to that. The clutch gear is also covered with heavy leather.

Formerly, the inspection foreman frequently called the weave room foreman upstairs when a second appeared. The weave room foreman then called the weaver or quilling foreman to look at the



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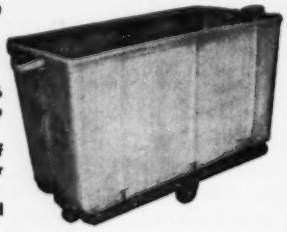

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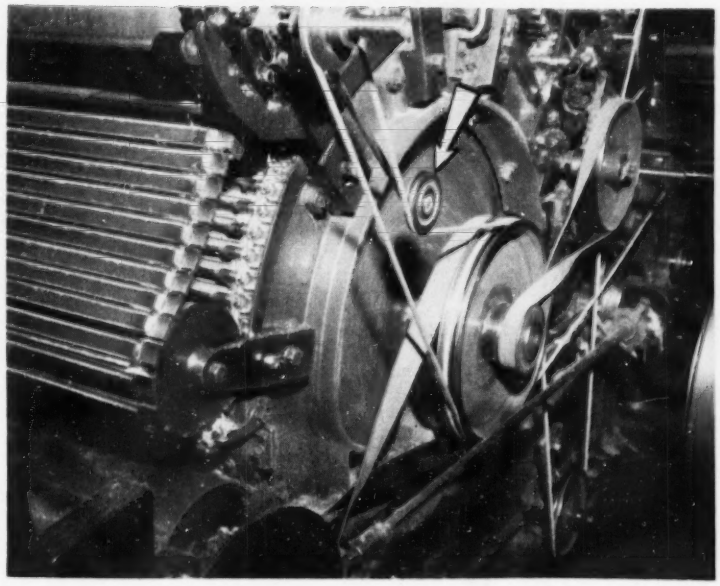
piece. This procedure consumed too much time sending operators up and down stairs and looking for the foremen.

The inspection machine has paid for itself many times in terms of improved quality and time saved. Now the inspection department sends substandard cloth down to the weave room where the inspection machine is located. It is now possible for overseers and fixers to look at the piece following a bad cut, so we have few bad cuts repeated. At the end of the third shift the cloth usually has been examined and is put back into a regular cloth truck and returned to the inspection department.

CONTRIBUTOR NO. 8680

Install This Idler Pulley to Maintain Uniform Card Flat Grinding Tension



EDITOR TEXTILE INDUSTRIES:

An idler pulley suspended from the flat grinder roll shaft on cards (see accompanying illustration) maintains even tension on the driving belt. This simple arrangement eliminates belt adjustments, saves time in installing and removing the driving belt, and maintains uniform grinder roll speed, thereby permitting a better job of grinding.

The upper idler arm bearing turns freely on the grinder roll shaft. A sealed ball bearing in the idler pulley requires no lubrication. This helpful attachment may be made in the mill shop at little expense.

CONTRIBUTOR NO. 8714

Reader Wants to Know How to Obtain Uniform Wool Roving

EDITOR TEXTILE INDUSTRIES:

We spin coarse count yarns from a mixture of wool and cotton waste, on the woolen system. We have been unable to overcome a wide variation in size of roving from the top and the bottom decks of the tape condenser. The count of the roving delivered from the upper decks is always finer than that delivered from the bottom decks.

For example, here are some weighings made recently on two counts we are running:

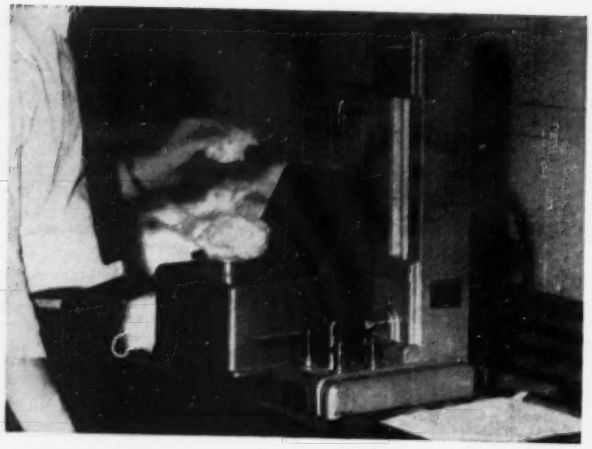
	Roving Count, Run	
	Top	Bottom
Pattern A	1.35	1.44
Pattern B	2.33	2.43

We have this same trouble with both single- and double-apron condensers.

To overcome this difference in count, we run spools from the two top decks on one mule, and the spools from the two bottom decks on another mule, changing the draft accordingly. This is of course inconvenient, and there is always the chance of spools becoming mixed.

Can any of your readers advise us on the steps we should take to obtain uniform counts from both top and bottom decks of the tape condenser?

CONTRIBUTOR NO. 8712



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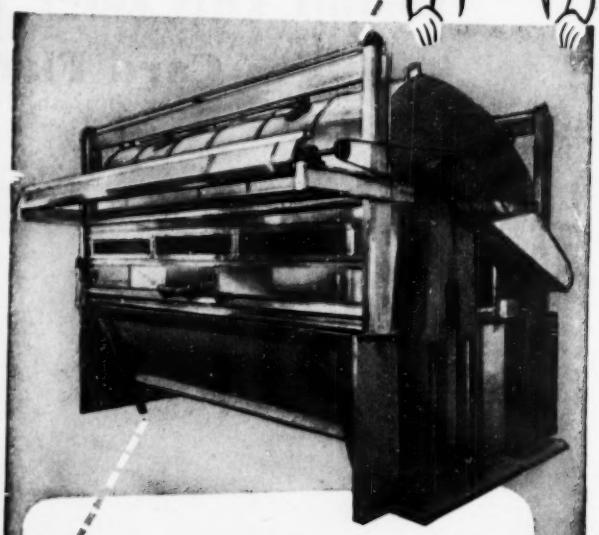

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. . . to clean in seconds with a quick rinse; . . . to eliminate boil outs; . . . to end discoloration of fabric; . . . to change from dark to light runs in a few seconds; . . . to give you more runs per day at lower cost.

3 *This Dyebox is Blickman Built*

. . . to be as accessible as an open box with none of the disadvantages; . . . to give dyers every design feature for speedier loading, heating, lacing, unloading and changeover; . . . to assure trouble free operation for many years.

Write for bulletin 7034

S. BLICKMAN, INC. 208 GREGORY AVE. WEEHAWKEN, N. J.

Blickman Built

STAINLESS STEEL TEXTILE EQUIPMENT

Dye Boxes, Linings, Cylinders, Dry Cans, Hoods, Tanks

Make This Simple Machine -- Clean Small Parts Automatically

EDITOR TEXTILE INDUSTRIES:

At our filament weaving mill we had two men whose full time job was cleaning flyers, guides, tension pads from shuttles, drop wires, and other small parts. We now do this job automatically with the set-up shown in the accompanying sketch.

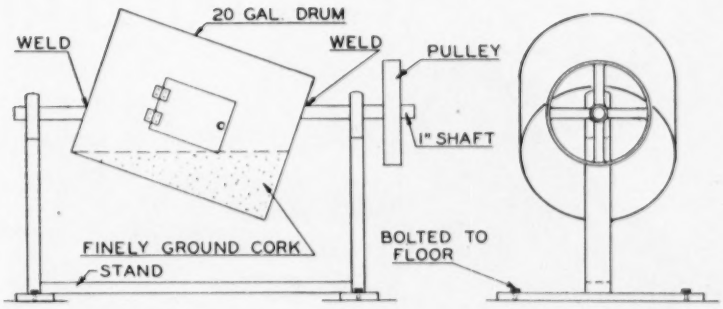
For a container we use a 20-gallon grease drum, the side of which is cut for a hinged door. The size of the drum of course depends on the number of parts to be cleaned. A length of 1-inch shafting is welded off-center at each end of the drum, half way from the center to the edge. A stand, the necessary bearings and pulleys, and a ½-hp motor, complete the set-up. We were able to obtain many of the parts we needed from an old drill press.

The drum is filled with finely ground cork to a point just below the door. No additive is needed in the cork. The off-center position of the drum insures agitation in all directions. The ground cork is changed whenever it becomes dirty—about once a month in our mill of 12,000 throwing spindles and 300 looms.

The fixer puts the parts to be cleaned into the drum, which is then started and allowed to rotate for at least 10 to 12 hours, and preferably for 24 hours. The drum should rotate at about 50 rpm, depending on its size. It should not be run so fast as to break glass or porcelain guides.

We have found that this arrangement does an excellent job of cleaning small parts, and none of them are now cleaned by hand. We saved the cost of the machine in one week. The device has proved particularly useful for cleaning small parts used with dope-dyed rayon and acetate, where careful cleaning is necessary to prevent contamination of other yarns.

CONTRIBUTOR NO. 8701



Here's a Quick Way to Get Low Twist on J3 Slubber

EDITOR TEXTILE INDUSTRIES:

Recently we found it would be convenient if we could change several of our J3 Saco-Lowell frames from 4 hank, 1 1/16" Strict Middling cotton to 1 hank, 1⅝" staple, 1½ denier viscose.

Our machines were not designed to accommodate such a long staple or to produce such a coarse hank roving, so we had several problems to solve before we could proceed. We were running cotton at 1100 rpm with a twist multiplier of 1.25, and we wanted to change to a twist multiplier of 0.90.

Upon examining the frame gearing (shown in Fig. 1) our fixer found the following solution:

(1) The gear A was removed.

(2) The compound gear BC was put directly into gear with the twist gear. It was turned around so the twist gear meshed with the smaller 29 tooth gear.

The rearranged train of gears appear in Fig. 2. We were thus able to get the exact turns we required with a 52 twist gear. The entire conversion cost us nothing except the time needed to make the change. The gears were already available in our stock room.

CONTRIBUTOR NO. 8644

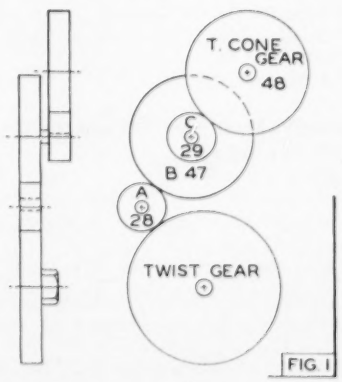


FIG. 1

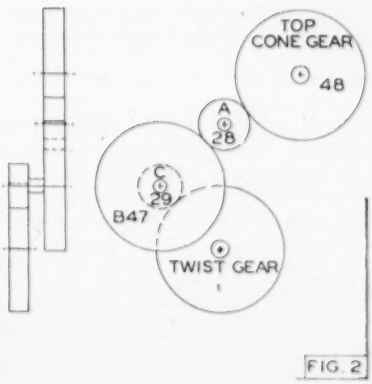
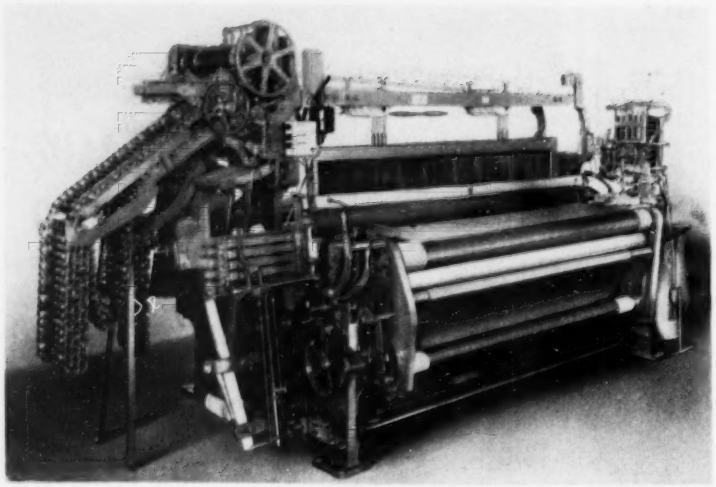


FIG. 2

NEW Equipment AND MATERIALS

Other items are described on pages 79, 81, 83



C&K W-3 automatic "Select-A-Pic" loom.

Weave Sharkskin, Glen Plaid, Splash, etc. Automatically

Maximum flexibility is provided by the C&K W-3 or W-3A automatic "Select-A-Pic" loom which permits automatic bobbin changing operation with automatic work assignments on many fabrics that would normally be woven non-automatically with non-automatic work assignments and production losses incident to changing shuttles by hand.

Fabrics alternating single picks of two colors (as in conventional sharkskins) or combining single-pick and double-pick sections using two colors (as in Glen Plaids) may be woven automatically using two or four shuttles.

If two shuttles are used for the two ground colors, one or two fancy colors may be woven on an automatic bobbin changing basis, although there are certain limitations in the sequence in which the fancy picks may be "called."

For the production of certain fabrics using two shuttles for the ground filling and utilizing the four magazine cells for these two ground colors, a third shuttle may be employed for occasional fancy picks. When the filling in the fancy shuttle is nearly depleted, the feeler will stop the loom with the shuttle at raceplate level so that the bobbin can be changed readily by hand.

Advantages to plant management include: (1) Helps eliminate unbalanced employment due to style changes from automatic to certain non-automatic fabrics, thus effecting lowest unemployment insurance rates; (2) obviates necessity of hiring floating or temporary weavers and laying off or rehiring battery hands; (3) permits styling new lines of a most attractive nature and insures market because of attractive production costs.

Crompton & Knowles Loom Works, Worcester, Mass.

For additional data, request item H-702, using Handy Return Card on page 169.

Movement of Material Synchronized from Tub to Tub on this Continuous Washer

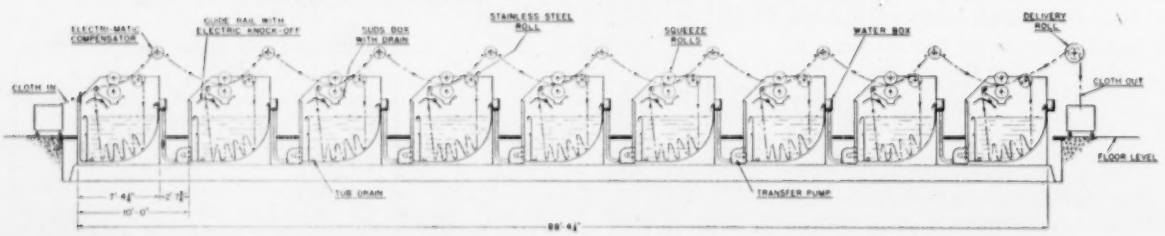
A flexible, variable-speed machine for washing and/or neutralizing of woolens, worsteds, and blends is the new Fleet Line Laxloop continuous cloth washer.

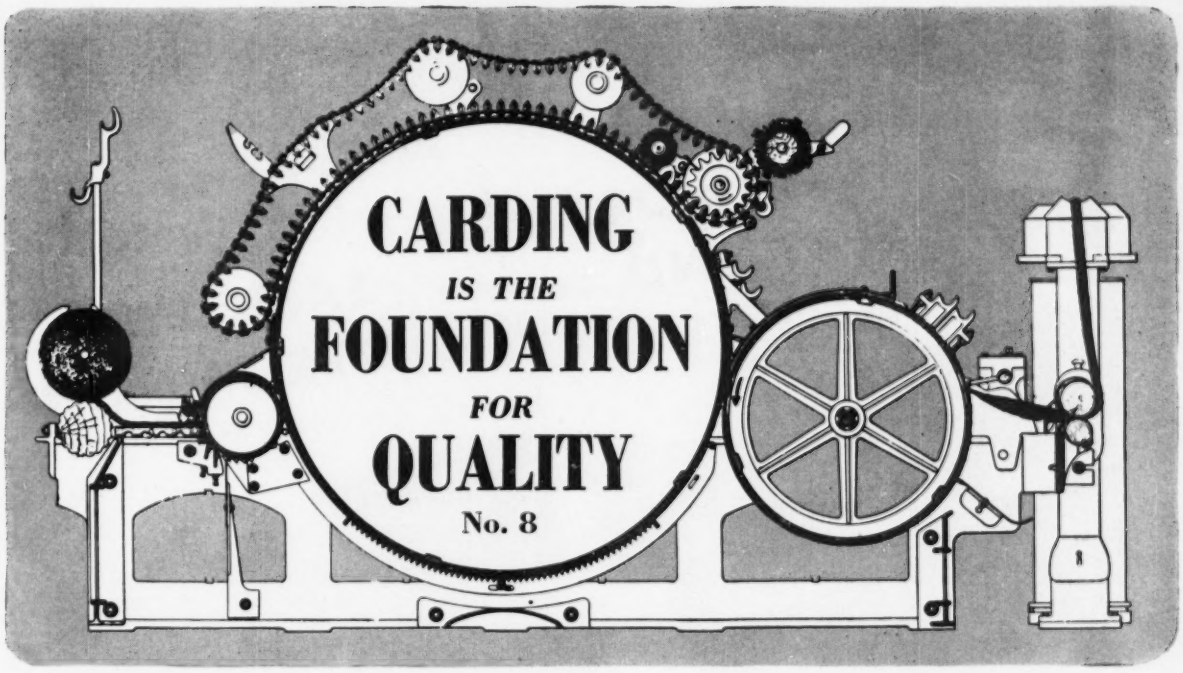
Movement of material is fully synchronized from tub to tub, keeping the fabric tensionless between tubs, under automatic control of the "Free-Loop Electri-matic Compensator" which operates the d-c drive for full control. With this new development, when two loops of cloth complete a low energy electrical circuit by coming in contact with two metal bars, corresponding tubs are synchronized.

Fabrics are washed at high speeds with exceptional efficiency. Cleaning is very good, with uniformity from piece to piece and set to set. Savings on labor are considerable, and a great reduction is effected on amount of water used. Less floor space is required than for equivalent production by conventional dolly washers.

Maintenance is simplified by accessibility of components. Rolls are of rubber, with air pressure on all

Riggs & Lombard's Fleet Line Laxloop continuous cloth washer.





PERSONAL TIPS FOR CARD GRINDERS

1. It is common practice to set lickerin to cylinder with lickerin driving belt off the card. Make your setting without belt. Apply belt. Check setting. Don't be surprised when you find this setting point closer than without belt. Final setting should be made with lickerin belted up.

2. It is also common practice when grinding a card, to leave lickerin to cylinder setting as is. This practice is dangerous when lickerin shafts, lickerin shrouds and cylinder bearings are worn. The cylinder shaft tends to roll to the opposite side of a worn bearing when the cylinder's direction of rotation is changed during grinding. Lickerin should be backed off to prevent cylinder and lickerin touching. Even very slight, intermittent contact between lickerin and cylinder causes cylinder wire to break out, and dulls lickerin.

3. It is good insurance against damage to double check all adjusting nuts, screws, and cap screws after card is ground and set. Many times cards have been found running with these important items not properly tightened, and in some cases, one or more missing entirely. Critical points are lickerin covers, lickerin bearing caps, flat adjusting stands, and doffer bearings. Check your job.

4. It is good insurance against bad work to have all driving belts in good condition and under correct tension.

5. The grinder should constantly patrol his job for evidence of facing or rubbing of flats and doffers, poor stripping, flats loading, lumps on nose of front screen, and quality of work produced.

6. Check condition of flat grinder cradles with particular reference to wear on shoe. Grinder cradle stands should be parallel and set exactly the same on right and left hand sides of card. In all cases where grinder cradles are not in use, periodic inspection of the grinding shoe or former should be made to observe whether any wear detrimental to the proper heel and toe formation has occurred.

7. Good grinding depends on the man and the equipment used. The traverse and flat drum grinders must be kept in good condition. Check periodically on shafts, traverse wheels, dogs, holders, brass bushings, and for wear between wheel and barrel.

8. The card grinder should be the "watchdog" on lubrication, even though oiling may not be part of his job. Improper oiling will affect quality, damage clothing, and cause wear of card parts in general.

9. Brushes are indispensable to the revolving flat card; they are probably the most neglected units of any card assembly. The spiral flat brush should run true, have good bristles of proper length, and be set correctly. The rotary and flat end brushes should be clean and in good working condition.

10. In the final analysis, the card grinder is responsible for the kind and amount of waste produced by the card. All the foregoing "tips" are offered to assist the grinder in maintaining quality production and proper waste control. Management should promptly furnish materials requisitioned by the grinder.

NOTE: All rights reserved. Reprints on request to Ashworth Bros., Inc., Fall River, Mass.

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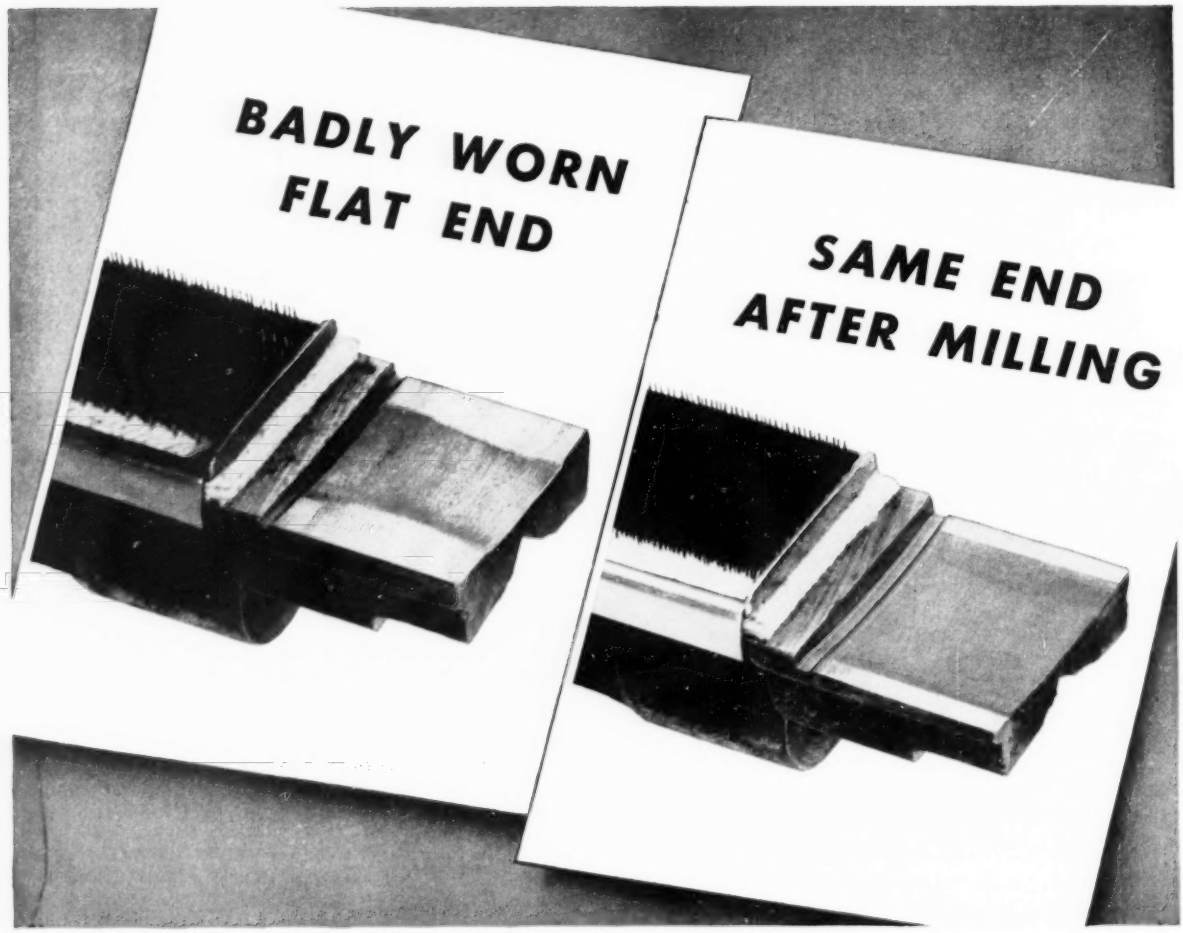


Remill Your Flats When Necessary

It's Part of Our Improved Flat Reclothing Service

Reclothing your flats won't stop poor carding, if your flat ends are badly worn. When you order flats reclothed, why not do a complete and thorough job? Our Fall River, Charlotte, Atlanta, and Greenville repair shops are better equipped than ever before to give you the following reclothing service:

1. Reclothe your flats.
2. Supply new flat chains for any make of card.
3. Last, but not least, remill your flats, when necessary.

Try this improved repair service and notice the difference in card performance.

OTHER ASHWORTH SERVICES

Reclothing Flats
Rewinding Lickerins
Rewinding Workers & Strippers
Complete Surveys of Cards & Clothing

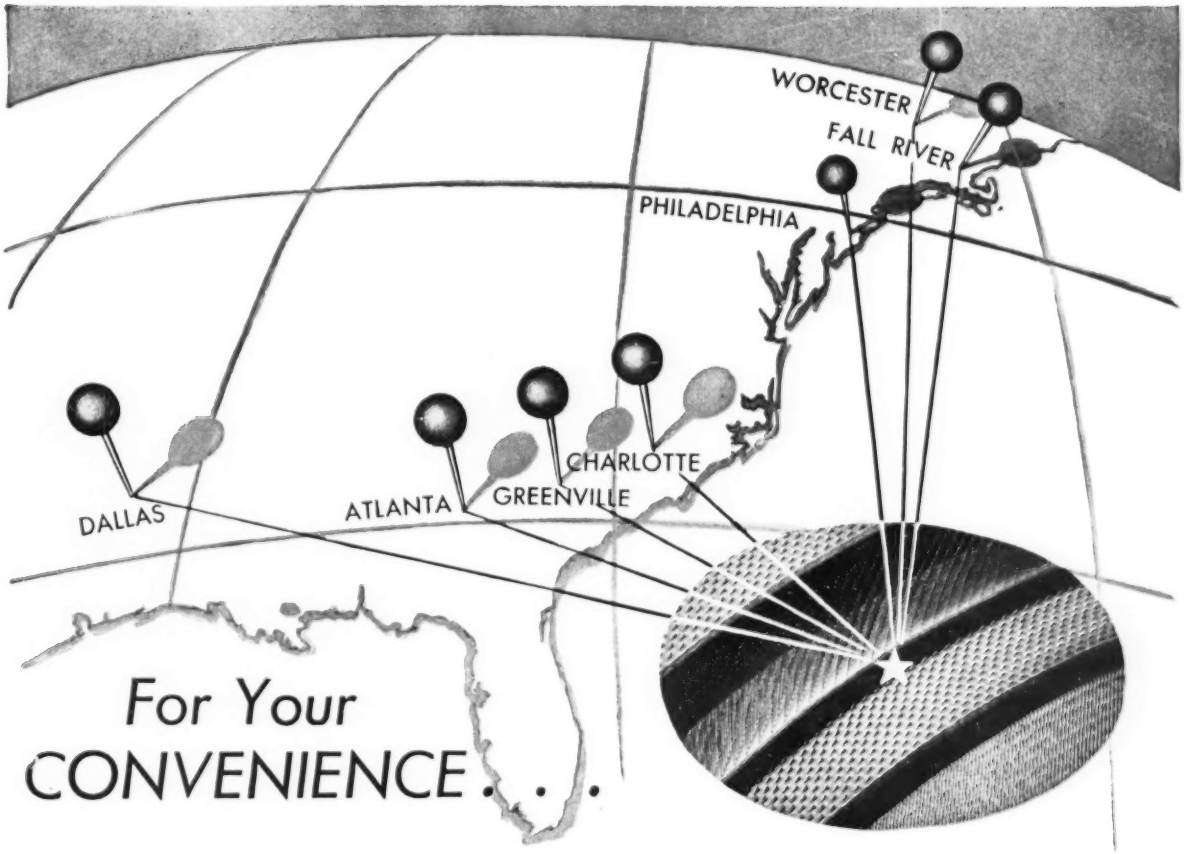
ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

Fall River*†‡ Worcester ‡ Philadelphia*†‡ Atlanta†‡ Greenville*†‡
Charlotte†‡ Dallas†‡ (Textile Supply Co.)

**Factory* *†Repair Shop* *‡Distributing Point*

3 FACTORIES 6 REPAIR SHOPS 7 DISTRIBUTING POINTS



For Your CONVENIENCE . . .

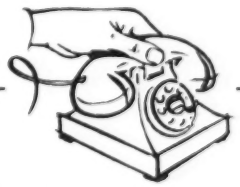
3 FACTORIES • 6 REPAIR SHOPS • 7 DISTRIBUTING POINTS

Three factories (Greenville, Philadelphia and Fall River), six repair shops (Greenville, Charlotte, Atlanta, Dallas (Textile Supply Co.), Philadelphia and Fall River) and seven distributing points (Greenville, Charlotte, Atlanta, Dallas, Philadelphia, Worcester and Fall River) make Ashworth Card Clothing and Ashworth Service *conveniently* yours.

Nearly a century of manufacturing experience makes Ashworth Card Clothing *dependably* yours.

PRODUCTS AND SERVICES

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery, Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.



For Prompt Service,

CALL ASHWORTH BROS., INC.

Greenville, S. C.	3-3631
Charlotte, N. C.	5-6069
Atlanta, Ga.	Main 0501
Dallas, Tex. (Textile Supply Co.)	Riverside 4729
Philadelphia, Pa.	Michigan 4-3490
Worcester, Mass.	3-4430
Fall River, Mass.	5-7886
Los Angeles, Calif. (E. G. Paules, Rep.)	Axminister 3-6265

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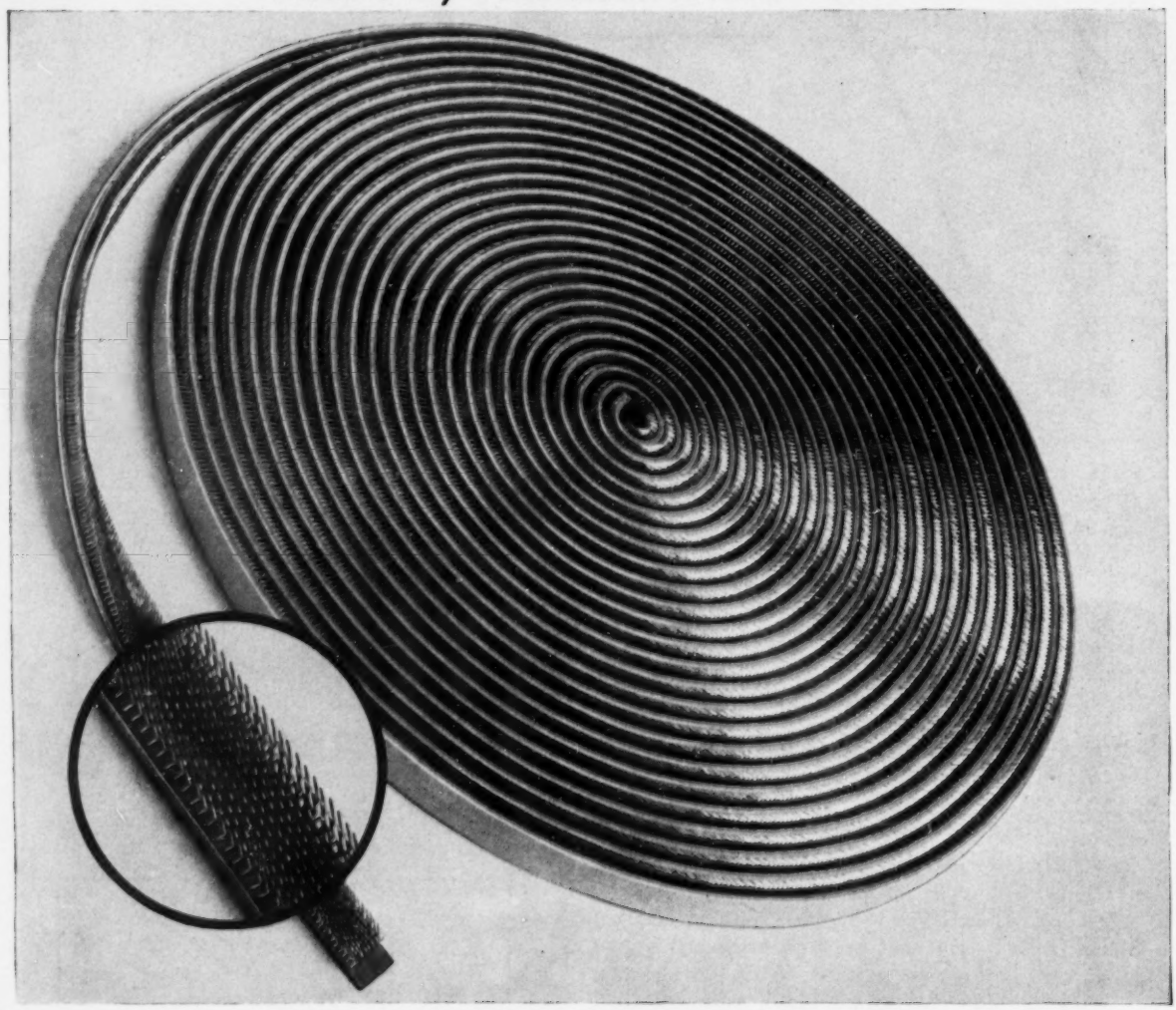
Ashworth CARD CLOTHING

Ashworth

NAPPER CLOTHING and BRUSHES

Made by Pioneers in the Field



We were among the first to manufacture napper clothing and brushes in the United States and now carry in stock standard types for prompt delivery. We also furnish special constructions to order.

Our long experience in this field and practical napper men on our staff enable us to intelligently analyze your napper problems and to make sound recommendations as to type of clothing needed — for wool, cotton, silk or man-made fibres.

Write to our nearest plant and tell us your problem or state your requirements.

ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

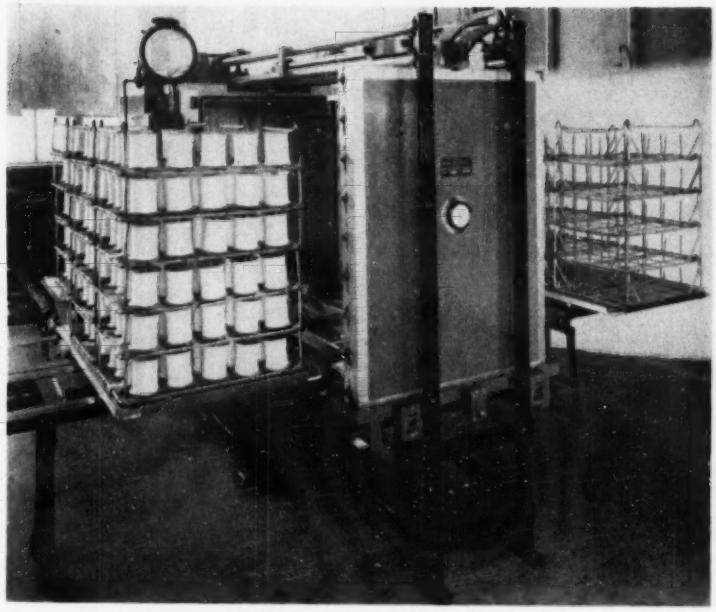
Fall River*†‡ Worcester‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)

*Factory †Repair Shop ‡Distributing Point

3 Factories — 6 Repair Shops — 7 Distributing Points

PRODUCTS AND SERVICES

Clothing for Cotton, Wool, Worsted, Silk, Synthetic Fibre and Asbestos Cards and for all Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors of Platt's Metallic Wire. Lickerins and Top Flats Reclothed.



Yarn setting and processing machine by Turbo.

rolls. Safety knock-offs prevent accidents to operators and materials. Every reliable device for automatic control of all elements involved in their operation is incorporated. Construction is stainless steel throughout.

Riggs & Lombard, Inc., Foot of Suffolk St., Lowell, Mass.

For additional data, request item H-124, using Handy Return Card on page 169.

Fabric Coating Machine Coats from Underneath

The Mawaco coating machine for the application of latex, rubber compounds, and certain resins to fabrics of all types applies the coating from underneath with the result that these advantages are gained:

1. The amount of coating to be applied can be regulated accurately.

2. There is no danger of compound seeping through fabric and causing damage to face of fabric.

3. The machine can be stopped at any time during the operation without danger of compound overflowing.

The machine is available in two different models: (1) the fabric is pulled through the machine by the dryer, or (2) the fabric is pulled through by the delivery rollers of the machine itself.

Both models can be furnished in one of these three types: (1) to apply the compound in the direction of travel of the fabric; (2) to apply the compound in the opposite direction of the travel of the fabric; or (3) "universal type" to apply compound in either direction.

Mawaco Machine Co., Inc., 56 Bogart St., Brooklyn 6, N. Y.

For additional data, request item H-103, using Handy Return Card on page 169.

Quick and Thorough Penetration of Package with this Yarn Setting Machine

A new yarn setting and processing machine capable of processing up to 300 pounds of yarn at one time provides quick and thorough penetration of nylon yarn packages through alternating cycles of steam pressure and vacuum.

The machine exhausts the steam and starts a vacuum cycle after the oven temperature has reached its high point. Even while the steam is being exhausted, the temperature begins to rise and during the vacuum cycle it rises still more sharply. Steam pressure is reintroduced and the core of the package reaches the setting temperature almost instantly.

Proper setting is accomplished in minutes instead of hours with this machine. Time loss is further minimized because there are two bobbin carriers. One is loaded by the operator while the other is in the machine for processing.

The machine is equipped with fully automatic controls which regulate the cycles moving goods into the cabinet, closing of the door, turning on and off the various steam and vacuum cycles, opening the door and moving out of the cabinet.

Required boiler pressure is 100 to 120 psi, with a steam flow of 800 pounds per hour for the machine. Floor space required is 12x14 feet.

Turbo Machine Co., Lansdale, Pa.

For additional data, request item H-214, using Handy Return Card on page 169.

Heddles Free to Slide Full Length in this Frame

For mills that do not have or anticipate purchasing drawing-in machines, advantages of the Drawtex frames and heddles can be obtained at less cost with the Glidetex frames and heddles.

The heddles are free to slide the full length of the frame. The "C" spring in the heddle eliminates breakage at that point. Flush type ends allow maximum frame length.

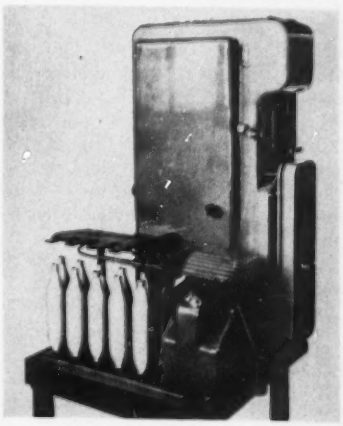
Steel Heddle Mfg. Co., 2100 Allegheny Ave., Philadelphia 32, Pa.

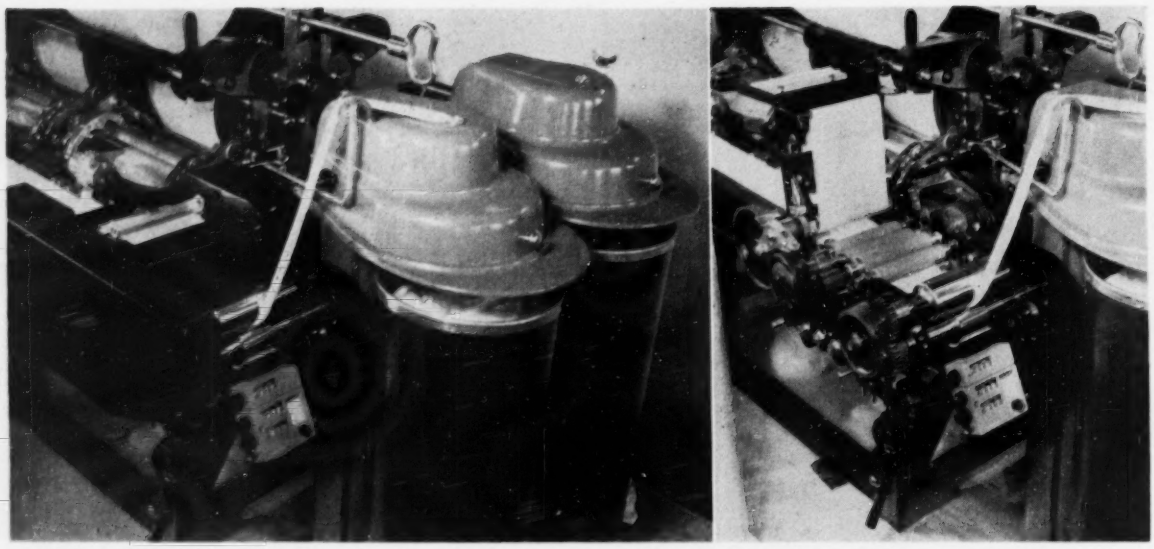
For additional data, request item H-116, using Handy Return Card on page 169.

Tests Up to 10 Bobbins Automatically

The Uster automatic yarn strength tester with the new multiple bobbin

Uster yarn strength tester.





Close-up views of the Saco-Lowell Model 54 comber, showing the 4-over-5 draw box and coiler heads. In right photo drafting rolls can be seen.

attachment tests up to ten bobbins at the push of a button where only one bobbin at a time could be previously handled.

It records yarn strength and elongation, gives total values, and automatically produces a frequency distribution curve.

The automatic operation and recording features reduce considerably the laboratory technician time required to make large numbers of break and elongation samplings on single strand testing instruments.

Uster Corp., 2516 Wilkinson Boulevard, Charlotte, N. C.

For additional data, request item H-113, using Handy Return Card on page 169.

Weft Straightener Handles Bow and Skew Weft Distortions

Now on the market is a weft straightening machine that will handle all types of weft distortions—skew, extreme skew, bow, bow and skew, or extreme bow and skew. Designated the Mount Hope Combination Bowed Weft Straightener and Skewed Weft Straightener (multi-roll), it has these outstanding features:

1. New method of pivoting swinging rolls at the selvage of cloth for quicker correction.

2. New spring mounted tension roll with limit switch to prevent slack selvage when correcting skew.

3. Compact, rugged construction, easily installed.

4. Operates on 120-volt, 60-cycle, single phase current.

5. Unit is complete with guiders to keep cloth in alignment.

Other weft straightening machines available from this manufacturer are: Mount Hope skewed weft straightener with single tilting roll for normal skews up to 20°—designed to straighten without lateral movement of material; Mount Hope skewed weft straightener (multi-roll type) for use where extreme skew exists; and the Mount Hope bowed weft straightener for correcting ordinary bow distortion in practically all types of material.

Mount Hope Machinery Co., 15 Fifth St., Taunton, Mass.

For additional data, request item H-104, using Handy Return Card on page 169.

Draper to Make New Self-Cleaning Filling Grates, Coat Used Ones

Draper Corporation and Deering Milliken Research Trust announce that an agreement has been reached between them whereby Draper is licensed to manufacture and sell the Teflon-coated fork grates developed and patented by the Research Trust (announced in TI for June, 1954, page 215). The agreement is an exclusive license to make new coated grates and is non-exclusive for making the patented grate by coating used grates.

Draper Corp., Hopedale, Mass.

For additional data, request item H-704, using Handy Return Card on page 169.

More Uniform Sliver from Comber with 3 Draft Zones

The new Saco-Lowell Model 54 comber provides high operating efficiency—in most mills as high as 94 to 96%, high production per man-hour, perfection of piecings, accuracy of noil extraction, and high recovery of the long staple.

Three improved assemblies are featured:

(1) The 4-over-5 draw box, which by means of three instead of two drafting zones gives unprecedented evenness and control of the combed sliver during drafting;

(2) A new self-cleaning draw-box clearer, which very effectively keeps waste fibers from falling back into the stock being drafted, and makes it easy to remove clearer waste without lifting of the clearer cover, and

(3) An improved coiler head and 14" can that allows much more stock to be placed in a can, and thus give longer runs between doffs. Fifteen-inch diameter cans can also be used with the new coiler head if desired.

The comber is built with two gear ratios for the detaching roll drive: 4 to 1 for fiber lengths of less than 1¼"; and 4.6 to 1 for longer staples. This ratio is that existing between the roller-motion gear and the detaching-roll gear. Changes in this ratio affect the draft between the

feed roller and the detaching roller.

Gears in the detaching motion are precision-cut helical gears. These helical gears give a smooth, accurately controlled motion from which all backlash and lost motion have been eliminated. The accurate control of the detaching rolls made possible through the use of these new helical gears makes it much easier to obtain a perfect piecing. The top detaching rolls, as well as the draw-box top rolls, are provided with needle bearings to give an easier motion and to save on the comber's power requirements.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item H-108, using Handy Return Card on page 169.

Variable Speed Hydraulic Transmissions Provide Dependable, Maintenance-Free Operation

A line of variable speed, integral hydraulic transmission units is particularly adapted to textile machinery drive applications. These 'package' units have variable displacement, axial type piston pumps and hydraulic motors, and suitable valves and controls enclosed in a bolted cast iron housing assembly. They are designed to cut drive maintenance costs and provide optimum drive characteristics and dependability.

The transmissions are ideal for application to machine drives on pads, tentering frames, dye becks, and other textile equipment requiring accurately controlled variable speeds. They can be run constantly at any selected speed from zero to 1,000 rpm. No limitations on creep speeds are imposed by either speed selection or length of operation.

Selected acceleration and deceleration rates are constant and stepless throughout the absolute speed range of each transmission. Speed control is positive without lag or override conditions, thus providing fine adjustments.

Completely sealed and self-lubricated, these transmissions are designed to avoid constant or close-interval maintenance costs incurred by lubrication, adjustment or minor part replacement. They are readily adaptable to synchronization through simple mechanical signals and can be used to advantage on many processing operations where a succession of in-line machines is required.

Six basic types of standard adjustable and interchangeable control assemblies can be provided on the transmissions to meet the various drive requirements of textile machinery. These include stem, handwheel, cylinder, pressure compensator, servo and electric control. When the individual control is on the pump end of the transmission, it regulates output speed and horsepower. When it is on the motor end, it also regulates output shaft speed and torque.

Vickers, Inc., 1400 Oakman Blvd., Detroit 32, Mich.

For additional data, request item H-216, using Handy Return Card on page 169.

Reed Cleaning Machine Is Fully Automatic

Fully automatic operation is offered by the Shawmut rotary reed cleaning and polishing machine. Up to 20 reeds are placed in the magazine, the machine turned on, and when the last reed is cleaned the machine will automatically shut off.

The machine cleans top and bottom of the reed at the same time; reeds in poor condition may be cleaned and polished in one pass through the machine.

A choice of six speeds is available, coupled with a wide range of brush types to clean and polish reeds of any sley in any condition. Mixed lengths of reeds are handled without any adjustment. The feed mechanism will automatically speed up to feed the shorter reeds into the cleaning chamber without loss of time.

In operation, reeds are fed from a loading battery at the left. They first pass through four brushes that concentrate on the section above and below the shed working space and along the backs to remove dirt, lint, and rust where it gathers most heavily. After this action they are fed between the two main brushes that are oscillating parallel to the dent wires from rib to rib. After they pass through this cleaning mechanism they are deposited in the receiving battery at the right, ready for drawing-in or storage.

Easily interchangeable brushes from coarse wire to fine nylons are available.

Schmidt Manufacturing Co., 280 North St., New Bedford, Mass.

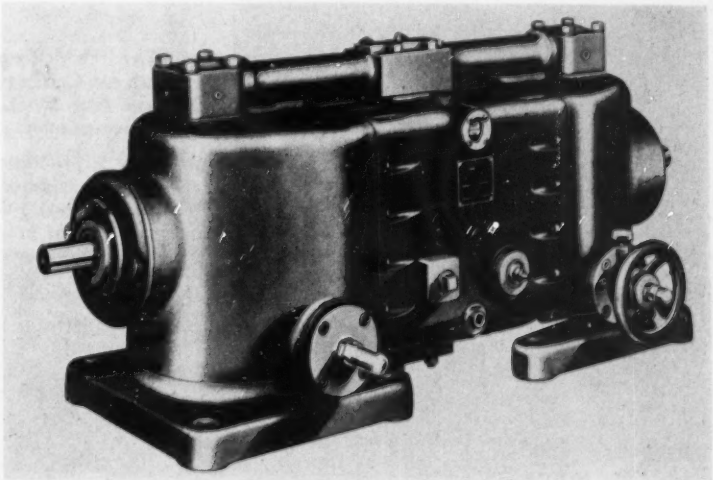
For additional data, request item H-705, using Handy Return Card on page 169.

Direct Warper Is Electrically Controlled

Some of the features offered by the Sipp-Eastwood heavy-duty, high-speed, electrically controlled direct warper, Type GB, are:

Speeds up to 900 ypm; accommodates beams with head diameters up to 36", distance between heads 54¼" or wider; pushbutton operation; drive from motor is through pulleys and multiple V-belts; separate hydraulic

Vickers' package type variable speed hydraulic transmission.



system, independent of main drive, handles beam in and out of warper; reed traverse motion; electronic tachometer.

Automatic precision control is provided to maintain constant, rigid, but gentle control over yarn tension and speed. Manual setting of a control knob affords a wide range of stepless speed changes. Speed can be preset or altered while the warper is running, and is automatically maintained throughout the beam build-up.

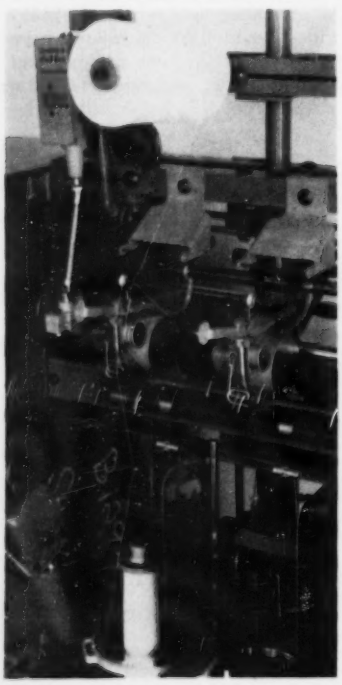
Sipp-Eastwood Corp., 35 Farrand St., Bloomfield, N. J.

For additional data, request item H-120, using Handy Return Card on page 169.

Ring Twister Has Unique Wet Twisting Attachment

The Leesona Model 10 wet twister for cotton yarns does not utilize the conventional trough emersion method—instead, water is supplied by a piping system to an orifice in a guide plate located in front of the feed rolls where it is picked up by the yarn. The guide plate serves two purposes—it guides the yarn over the orifice where it picks up the water and also channels off any excess water not picked up by the yarn. Excess water is disposed of through a covered trough.

Close-up of Model 10 twister, showing new wet twisting attachment (Universal Winding).

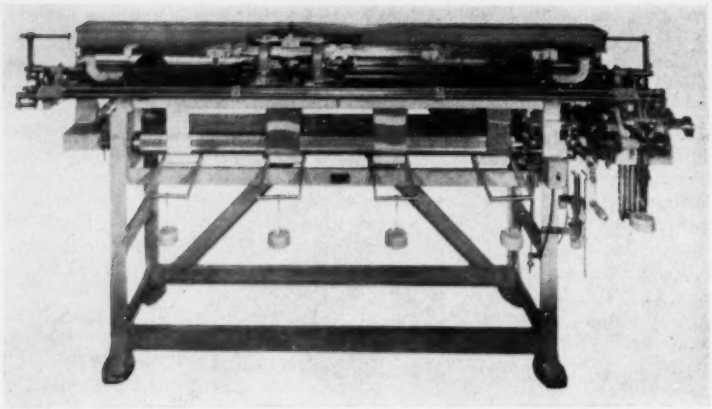


Following are the advantages of this wet twisting method: It requires no increase in handling time over dry twisting; it is self-cleaning; the water is always fresh and contains no lint, rust, etc.; the twist is inserted at the point where the yarn contains the greatest amount of water.

Model 10 ring twisters equipped with the wet twisting attachment can also be used for dry twisting. Also, it is understood that the wet twisting attachment will, at a later date, be available for installation on existing Model 10 machines.

Universal Winding Co., P. O. Box 1605, Providence, R. I.

For additional data, request item H-210, using Handy Return Card on page 169.



Queens Model B fully automatic flat "V" type knitter.

Automatic Flat "V" Type Knitter Makes Collars, Cuffs, Trims for Full-Fashioned Sweaters

Designed primarily to produce collars, cuffs, tails, and other trims for full-fashioned and cut-and-sewn sweaters but also capable of producing garment sections with knit-on cuffs or tails is a new, power-operated, fully automatic, flat "V" type knitting machine, designated Queens Model "B".

Some of its features are:

High and low butt needles on both needle beds and behind these a row of jacks;

Carriage or knitting head has a drop type cardigan lock on each side;

All of the locks and all of the carriage movements can be controlled on each course on either end of the carriage travel;

Short carriage is driven through slide box and chain drive arrangement;

There are four yarn bars, each yarn carrier being controllable from each end of the machine;

All movements are controlled by a pattern chain buck similar to the system used on the Queens flat full-automatic link and link (purl stitch) machines.

Queens Machine Co., 262-284 Starr St., Brooklyn 37, N. Y.

For additional data, request item, H-706, using Handy Return Card on page 169.

Odor-Free Paints for Interior Use

Barreled Sunlight Odor-Free Alkyd Flat Enamel is a new type of odorless finish for the decorative painting of ceilings, walls, and woodwork in mill offices, cafeterias, employee houses, etc. It combines the smoothness, toughness, and "scrubability" of a top quality enamel with the fast, easy application qualities of a high grade flat wall paint.

Other features: Requires no primer—one coat is normally sufficient, even on new work; can be applied directly over bare plaster, masonry, wood, wall board, etc. Available in white and twelve colors.

A companion product is Barreled Sunlight Odor-Free Alkyd Semi-Gloss for woodwork and other interior surfaces where even greater washability is required yet where for

FAMOUS FOR FASTNESS

The name Ciba is associated indelibly with progress in the production of faster dyes.

These famous trade names—associated with products that are the best of their class—represent landmarks on the path of achievement whereby Ciba continues to discover and to produce new dyes that truly are "Famous for Fastness".

CIBANONE® *Dyes*

Anthraquinone Vat dyestuffs of the highest quality which are standardized for all methods of application.

NEOLAN® *Dyes*

Acid dyeing pre-metallized dyestuffs with very good fastness to light and good fastness to washing and perspiration.

CHLORANTINE® *Dyes*

Substantive dyestuffs which produce shades with outstanding fastness to light. Selected colors from this group are suitable for aftertreatment with urea formaldehyde resin and copper salts to produce shades which have excellent light- and wet-fastness.

COPRANTINE® *Dyes*

Substantive dyestuffs which, when aftertreated with copper salts, produce dyeings with remarkably good fastness to light and washing. Coprantex B is especially recommended for aftertreating these colors.

CIBALAN® *Dyes*

The original neutral dyeing pre-metallized dyestuffs with uniform dyeing rates and remarkable light- and wet-fastness properties.

CIBA

pioneers in the production of faster dyes.

decorative or other reasons a high gloss is not desired. Available in white and eight standard colors.

Barreled Sunlight Paint Co., Providence, R. I.

For additional data, request item H-707, using Handy Return Card on page 169.

Direct Spinner Makes High Quality Yarn from Tow

In addition to the general advantages resulting from direct spinning of yarns from tow, the Stains Direct Spinner—a spinning machine manufactured by Societe de Constructions Mecaniques de Stains of Paris, France, and now available from Whitin Machine Works in the United States and Canada—offers these: yarns which are superior in cleanliness, uniformity, and breaking strength so that high weaving efficiencies are easy to maintain; extreme flexibility, since a wide range of yarns can be produced from a few different types of tow; construction of unit is so similar to conventional spinning frame that very little additional training of personnel is necessary.

This machine (detailed description of which appeared in TI for August, 1953, page 213) processes continuous filament tow into yarn in one operation by a controlled tension breaking of the fibers into predetermined lengths by the use of a rotating prism immediately after drafting, yet retaining the parallel position of the fibers. After drafting in the usual manner, the insertion of twist and winding of yarn on the bobbin takes place through the use of the conventional spindle, ring, and traveler.

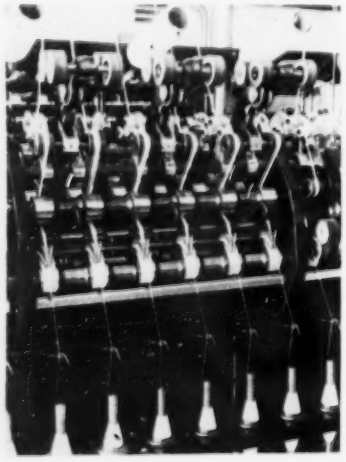
The machine will handle all synthetic filaments and is capable of spinning high quality, knot-free yarn in a range of counts from approximately 9s to 105s (cotton count).

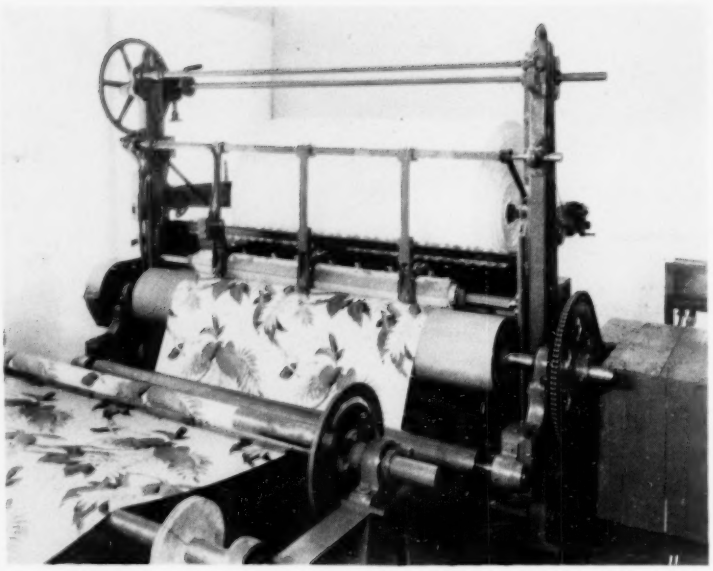
Tow processed can range from 2000 denier to 8000 denier, zero twist. Individual filament deniers can range from 0.5 to 5.0. Recommended drafts range from 10-40.

Whitin Machine Works, Whitinsville, Mass.

For additional data, request item H-102, using Handy Return Card on page 169.

Close-up of Stains direct spinner available from Whitin.





Emco rotary cutter-winder recently announced by Butterworth.

Rotary Cutter-Winder for Wide Variety of Fabrics

Several new and exclusive features are incorporated in the Emco rotary cutter-winder. The cutting device is made of numerous discs, 3 inches in diameter and having 24 teeth per disc. Cutters are driven by electric motor and can cut materials at high or low speeds—even when material is stationary.

The machine has roller bearing jaws and roller bearing arms with a double release that provides a straight drop. Splicers and fingers start the cut end of material on a new shell without use of a wetting agent.

Rolls of 12-inch minimum diameter can be wound and cut. The machine enables a manufacturer to handle short run batches. It can be furnished to wind a soft roll, and it can wind and cut a wide variety of materials. Double-double sheeting can be cut at maximum recommended speed of 75 ypm.

H. W. Butterworth & Sons Co., Bethayres, Pa.

For additional data, request item H-802, using Handy Return Card on page 169.

Vinyl Sponge Can Be Laminated to Fabric

A new vinyl sponge plastisol of particular interest to the textile industry may be used as rug padding or underlays or as a laminate to textiles, to mention just a few of its applications.

This compound, furnished as a pourable liquid, expands on curing at 350 to 400 F to a uniform vinyl sponge coating. Normal coating and curing equipment such as used in applying other vinyl type dispersions can be used satisfactorily. A chemical blowing agent incorporated into a special vinyl plastisol causes expansion at atmospheric pressures.

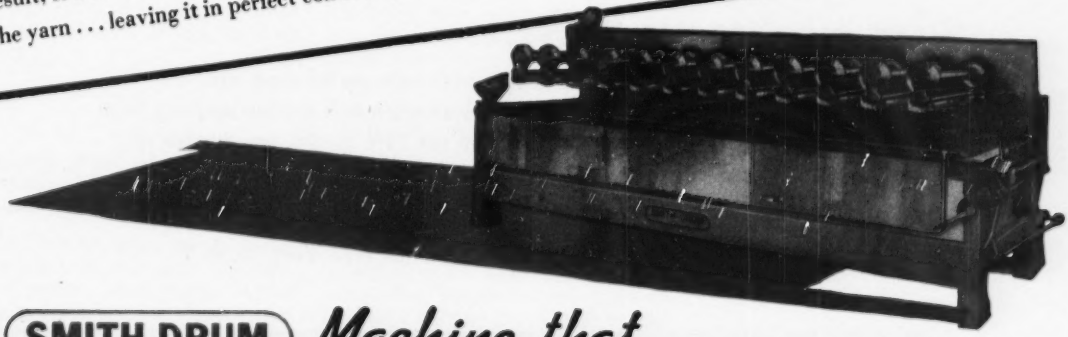
This versatile compound may be modified by the manufacturer to

. . . and there's ONLY ONE WAY to Prevent it.

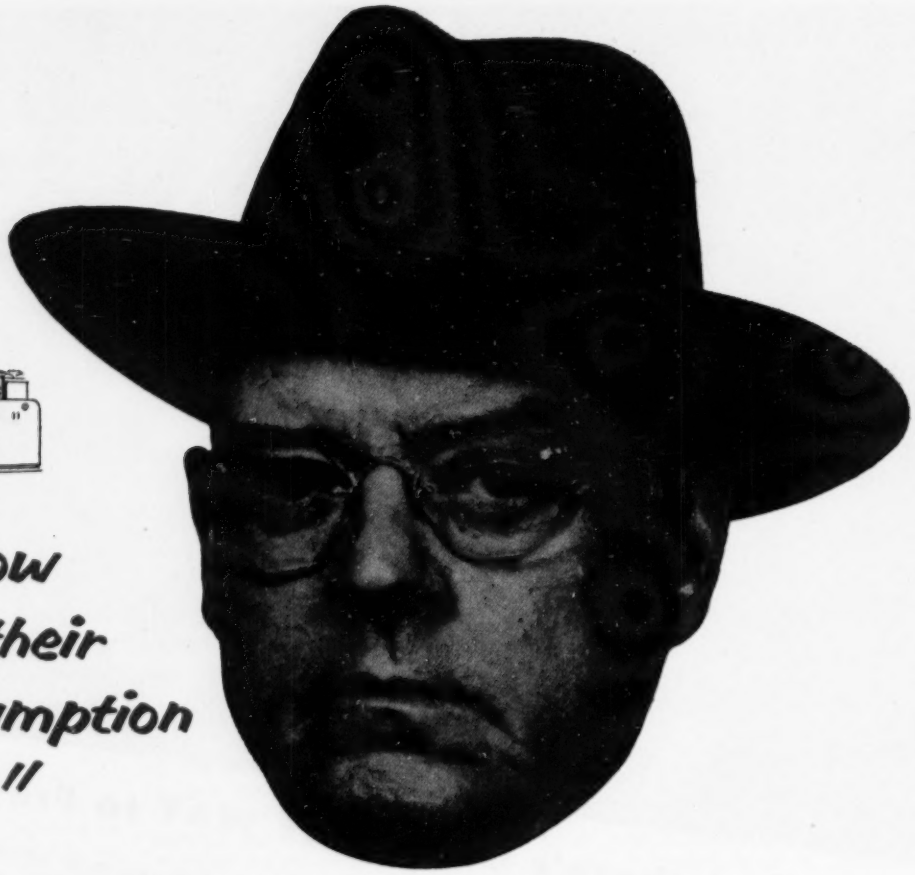
If your present skein dyeing equipment results in snarled yarn or broken filaments, you are incurring needless extra cost and time in back-winding. There is one sure way to end this waste and *only* one . . . install the SMITH-DRUM Type CSD Skein Dyeing Machine.

This is the machine that introduced the principle of "moving the liquor instead of the yarn." As a result, it entirely eliminates tangling or breaking of the yarn . . . leaving it in perfect condition for winding. It also dyes yarn more quickly and uniformly than other methods, resulting in savings of from 10% to 30%. If you dye filament rayon, nylon and other synthetic yarns or fine count cotton yarns in skein form, it will pay you to get the facts on this proven money-saving machine. Write . . .

SMITH, DRUM & COMPANY
432 W. Allegheny Ave., Phila. 33, Pa.



The **SMITH-DRUM** *Machine that Moves the Liquor Instead of the Yarn!*



"Here's how we cut their oil consumption 35%..."

A large cotton mill in the state of Georgia was dissatisfied with their spindle oil – the cost was high *and so was consumption.* Sinclair Lubrication Engineer Lewis Kay was asked for his recommendation.

75 frames isolated...

Mr. Kay reports, "I recommended Sinclair LILY WHITE OIL AX which was much lower in price and 25% lighter-bodied than the oil being used. The overseer isolated 75 frames for a test run – and found the lighter oil not only reduced his power load but actually cut oil consumption 35%."

Test compares iron residue...

Mr. Kay continues, "Moreover, comparative lab tests on the used oils showed the competitive oil contained 4 times as much iron residue resulting from wear as LILY WHITE... bolster wear had been cut 75% by this one Sinclair oil."

Why not give a Sinclair Lubrication Engineer the chance to help solve *your* lubrication problem. There's no obligation. Contact your local Sinclair office or write Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

SINCLAIR LUBRICANTS

various densities, tear strength, elongations, and chemical resistance for various end uses. A unique feature of one of these vinyl sponge plastisol compounds is that a film may be cured and rolled and then later expanded by the application of additional heat.

They will not rot nor stain and are virtually odorless. They are scuff resistant, perspiration resistant, and will not harden with age. These compounds are resistant to fading and can be manufactured in any color and with a leather-like finish if desired.

Watson-Standard Co., 225 Galveston Ave., Pittsburgh 12, Penna.

For additional data, request item H-708, using Handy Return Card on page 169.

Automatic Tenter Clip Has True Roller Link

The Model No. 12M roller type automatic tenter clip was designed and developed to lift the speed limitations and increase cloth control in the operation of high speed tenter chains. It has a malleable iron main body, bronze jaw, and a full 2" pitch roller chain.

By removing two special screws and lock washers, the clip can be lifted or removed free of the roller chain and substituted or replaced as desired.

The roller chain provides low-friction operation on the tenter. The roller action permits use of the rollers along the full raceway of the tenter rails. A patented interlocking feature prevents weaving action along the straightaway sections and immediately after turning the sprockets.

Winsor & Jerauld Mfg. Co., Inc., 1268 Eddy St., Providence 5, R. I.

For additional data, request item H-115, using Handy Return Card on page 169.

Bearings and Bushings Isolate Vibration, Need No Lubrication

Harris flexible bearings and bushings which are basically combinations of rubber or synthetic rubber with metals can isolate vibrations, relieve misalignment, reduce noise, take oscillating movements without friction or lubrication, and eliminate torsional vibrations.

Textile industry applications visualized for these products include: bushings in bobbins to isolate vibrations set up in operation of high speed spindles; loom temple cutters; heel springs for looms; cam rollers; etc. Also, they can be custom-made for any specific application.

Combinations of any type of rubber or synthetic rubber with all types of metals can be assembled as the problem requires.

Harris Products Co. 1929 East 61st St., Cleveland 3, Ohio.

For additional data, request item H-709, using Handy Return Card on page 169.

Consider These Features of Aluminum Bobbins

Simplified construction of a new aluminum take-up spool for synthetics makes production of special sizes less expensive. Strength of the new bobbin is indicated by the fact that it withstood a pressure of 4.5 tons between the barrel and the head.

High strength, light weight, and high precision are outstanding features of a new all-aluminum uptwisting bobbin with stainless steel rim on its flanges. So that mill personnel can burnish flanges when they become nicked, a burnishing machine is available.

Acrometal Products, Inc., Minneapolis, Minn.

For additional data, request item H-710, using Handy Return Card on page 169.

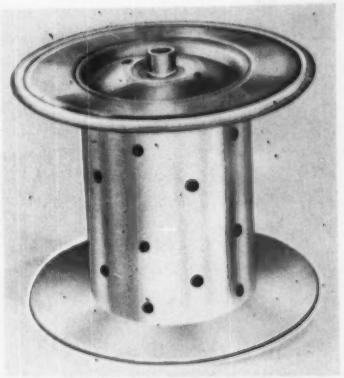
Antifriction-Bearing Roving Frame Compound Is Grease-Lubricated

A new compound, one completely equipped with antifriction bearings, has been developed as an improvement over the standard spur-gear compound used on roving frames. The compound eliminates the use of oil, and the bearings require only occasional grease lubrication at three points: one on the sleeve, one on the cage, and one on the housing.

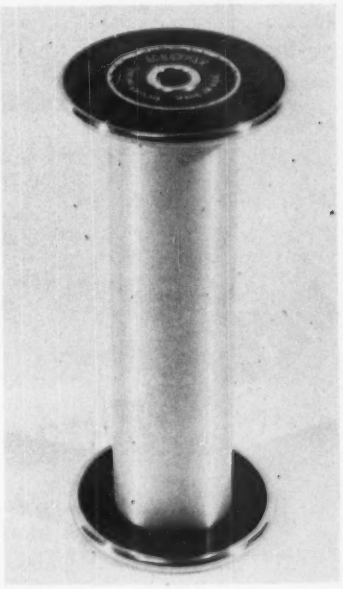
The design of the compound involves the use of over-size needle bearings at the following points: two supporting the sleeve, two supporting the cage on the sleeve, and two supporting each of the two planet pinions within the cage. The housing is keyed to the main shaft in the normal manner.

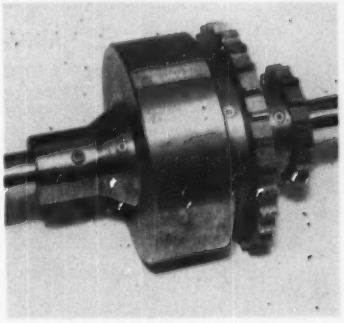
The chain sprockets and the compound gear ratio remain unchanged, thus making application of the com-

NEW Equipment AND MATERIALS



Acrometal take-up spool (above) and uptwisting bobbin (below).





Antifriction-bearing roving frame compound by Saco-Lowell.

GAIR can help PROTECT YOUR PRODUCT

with engineered PACKAGING

Have you ever counted the hazards your product faces during transportation and warehousing? The rough handling and battering, plus pressure from stacking, are conditions that demand positive protection.

To solve the problem, Gair engineers design shipping boxes to give *two-way protection:*

1. Protection from external damage and shock – by the correct choice of box style;

2. Protection from internal shifting and breakage – by scientifically-designed inner packing.

In addition, Gair makes sure that the box is simple to pack.

Take advantage of this engineering service . . without charge. Check with the Gair factory nearest you to learn how. Learn, too, how Gair's assured material supply and delivery service can help give you the best in corrugated shipping boxes.

Ask for our booklet on the sealing of boxes.

CAMBRIDGE, MASS. • CLEVELAND, OHIO • HOLYOKE, MASS. • LOS ANGELES, CAL. • MARTINSVILLE, VA.
NO. TONAWANDA, N. Y. • PHILADELPHIA, PA. • PORTLAND, CONN. • RICHMOND, VA. • SYRACUSE, N. Y. • TETERBORO, N. J.

GAIR

SHIPPING CONTAINERS
FOLDING CARTONS
PAPERBOARD

ROBERT GAIR COMPANY, INC. • 155 EAST 44th STREET • NEW YORK 17

pound on existing frames a simple matter.

The new compound will soon be standard on all new roving frames built by Saco-Lowell Shops. It will also be available for use on existing roving frames.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item H-110, using Handy Return Card on page 169.

Card Clothing Impervious to Heat and Oil

The foundation of Sykes five-ply VIRVC (vulcanized in rubber with vulcanized cements) card clothing is impervious to heat and oil and gives resilience to the teeth or wire. Clothing retains a new-like condition throughout its life. Redrawing due to wire going behind the foundation is eliminated entirely.

Sykes, Inc., 1445 S. Mint St., Charlotte, N. C.

For additional data, request item H-121, using Handy Return Card on page 169.

Multi-Purpose Looms Provide Flexibility and Versatility

To one basic loom frame, consisting of loom sides, cross girts, "A" girts, drive and shipping, standard protection, standard picking, Crompton & Knowles can add these motions: any take-up; any shedding mechanism—Jacquard, dobby, head motion, under cam or end cam; 1, 2, 3, or 4 color rotary magazine; any let-off—from friction and other types to latest composite automatic type; vacuum filling control on 2, 3, and 4 color rotary magazines; box motion —geared or head type, call box or filling mix, or operated from head.

In production now are five new types of C&K "Multi - Purpose" looms: (1) for weaving gray flannel filling mix; (2) for weaving two-color denim automatically; (3) for weaving four-color filament dress goods automatically; (4) for weaving 4 x 1 spun rayon blends; (5) for weaving two-color upholstery fabrics.

Crompton & Knowles Loom Works, Worcester, Mass.

For additional data, request item H-803, using Handy Return Card on page 169.

Electronic Yarn Imperfection Indicator

The number of imperfections in a given sample of yarn now can be determined accurately and counted electronically by the new "Neptel," an electronic instrument for quantitatively indicating yarn imperfections. The operation is easily and rapidly performed, and a skilled operator is not required.

Various imperfections in the yarn such as neps, naps, motes, etc., are counted accurately, eliminating the human error or "by and large" thinking in the judgment of yarn quality, especially in borderline cases. Variability of testing results among various firms is diminished. A definite control is established on "between operator variance" in counting or judging yarn imperfections.

Reliable quantitative analysis is available in extremely short time and low operating cost—only 30 seconds are required to test 50 yards of yarn irrespective of fiber, size or quality level. Imperfections are counted in 100% of the sample.

Results are reproducible.

How it operates: The yarn is exposed to an intense beam of light. This light operates an electric eye. When an imperfection in the yarn passes through the beam of light, the amount of light on the electric eye is decreased. This significant change in the amount of light causes an electrical signal which is passed through the electronic circuits, so that each change or imperfection is counted and indicated on the control panel.

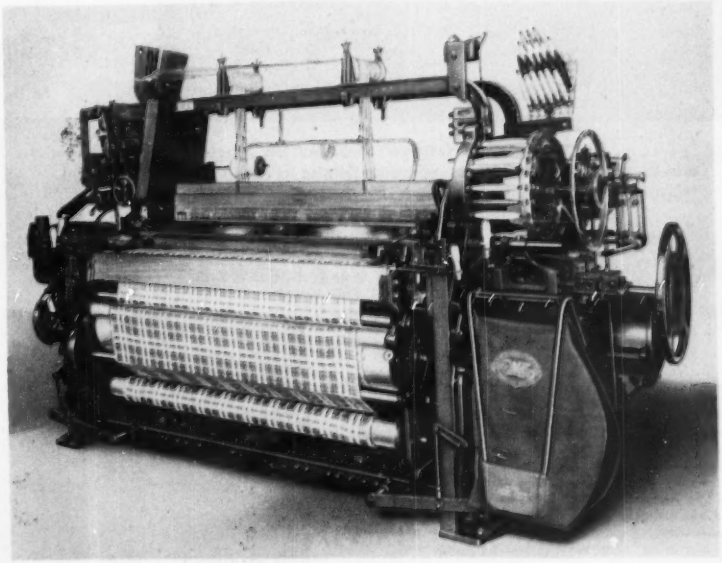
After fifty yards of yarn have been tested, the counting automatically stops and the total number of imperfections can be read on the instrument.

The Sheffield Corp., Box 893, Dayton 1, Ohio.

For additional data, request item H-501, using Handy Return Card on page 169.

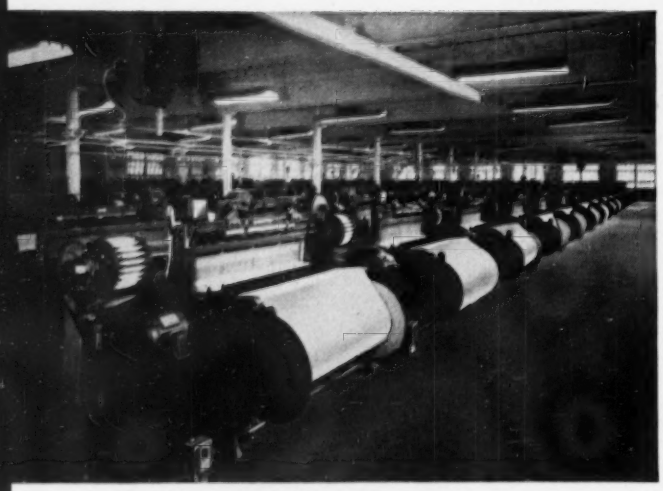
The Neptel by Sheffield Corp.

One of C&K's multi-purpose looms—weaves four-color filament dress goods automatically.



CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY



at **LEWARD COTTON MILLS.** Cutler-Hammer Loom Switches and Pedestals equip the loom room. Leward Cotton Mills, Inc., Worthville, N. C.

at **STATESVILLE.** Cutler-Hammer Combination Starters and Shipper Rod Switches on spinning frames in STATESVILLE DIVISION, The Seminole Mills, Statesville, N. C.

CUTLER-HAMMER CARD CONTROLLER

With integral drum type reverse switch

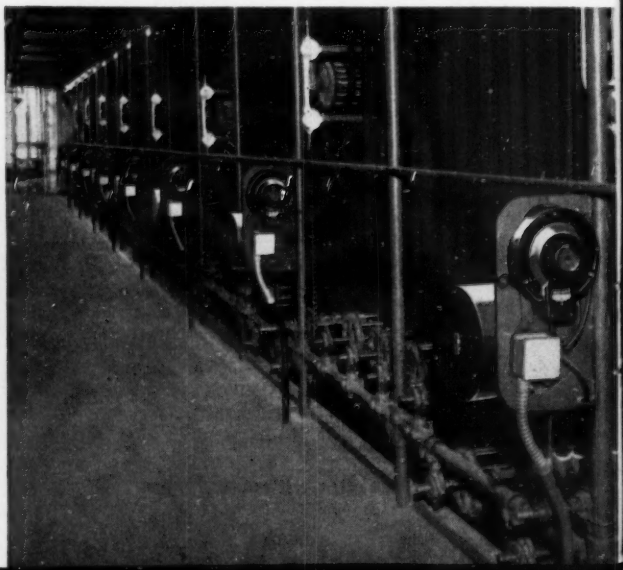
Here in one self-contained unit is all the control needed for a card...convenient pushbutton starting and stopping *plus* an integral reverse switch for cleaning and grinding. Card cannot be reversed accidentally or by any unauthorized person when controller case is padlocked. Easier to install. Easier and safer to use. Felt-gasketed against lint. Famous Cutler-Hammer Eutectic Element Overload Protection specially arranged to provide long starting time (required for cards) without loss of normal operating protection.

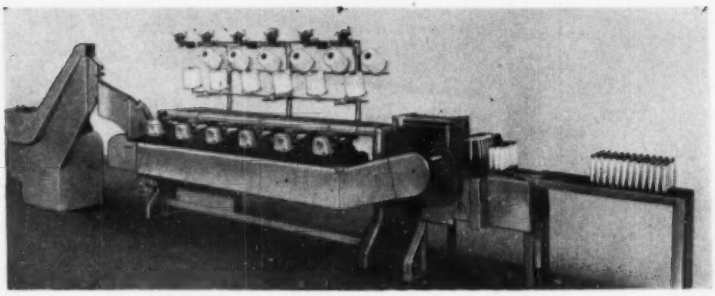
Protection too important to lose by default

The fact that a single production interruption caused by faulty control equipment can cost a textile mill more than the entire purchase price of the control shows clearly that dependability in motor control is too important to lose by default. Motor control must be purchased by *name*... not merely by size and type. Many mills have found it pays to standardize on Cutler-Hammer Motor Control and refuse all substitutes. They have found Cutler-Hammer dependability far more than a mere competitive claim, that it can stand out in operating records as an important economy. They recognize it as the earned advantage of the longest and most intense specialization in motor control engineering... a safeguard for every motor control need from the simplest starter to the most complex of electronic equipment. You too will find it pays to insist on Cutler-Hammer Motor Control. A network of Authorized Cutler-Hammer Distributors throughout the textile manufacturing areas insures prompt attention and supply. CUTLER-HAMMER, Inc., 1456 St. Paul Avenue, Milwaukee 1, Wisconsin.

CUTLER·HAMMER
MOTOR CONTROL
C-H

at **CONE MILLS.** Cutler-Hammer Dancer Roll Rheostats and Vernier Rheostats on 20 motor indigo dye range. Cone Mills, Greensboro, N. C.





Whitin "Speed-Matic" automatic filling bobbin winder.

High Production and Low Winding Costs with Automatic Filling Winder

Advantages offered by the new Whitin "Speed-Matic" automatic filling bobbin winder with empty bobbin loader are high production and low winding costs, simplicity, easily accessible and removable external assemblies, and fool-proof construction.

Available with or without a fully automatic pin boarding device, the winder can be supplied in single or multiple units of four spindles, with normal total unit sizes of 4, 6, or 8 spindles or combinations thereof up to 24 spindles. When the pin boarding device is not used, the filled bobbins are discharged into a tote box or other suitable receptacle.

Although the machine winds at 12,500 rpm, the speeds of all the other motions and elements have been reduced to less than 1000 rpm. This insures much longer wear and life of all parts of the winder, and decreases the accident hazard. Only the bobbin driving spindle shaft which is mounted in precision ball bearings is operating at high speeds.

A few of the outstanding features are:

1. Individual winding units
2. Spindle speed, 12,500 rpm
3. Quiet operation
4. Individual brake-clutch motor drive—no friction elements
5. Winds tail-less bobbin
6. Micro-adjustment of bobbin diameter
7. Bobbin built without use of feeler
8. Parallel sided bobbin made, irrespective of empty bobbin taper
9. All wind ratios achievable at maximum spindle speed
10. Precise bunch control—up to 30 yards
11. External assemblies—accessible and easily removable as units—for pick motion; bunch builder, and doff-cam assembly
12. External self-contained traverse assembly controls Layerlok yarn traverse and full range of traverse adjustment
13. Bobbin-head fan clears winding area of fly
14. Straight yarn draw from tension device.

Whitin Machine Works, Whitinsville, Mass.

For additional data, request item H-711, using Handy Return Card on page 169.

New Type Air Regulator, Filter, Lubricator

New principles of operation are utilized in the new line of PSC universal air control devices, consisting of air regulators, filters, lubricators, automatic drain traps, quick coupling connectors, and "Rotary" air seals.

The regulator employs a balanced piston principle with automatic bleed-off, making possible sensitive adjustments to ¼ pound. It automatically compensates for volume increase or decrease, permitting multiple applications without resetting. Large self-cleaning orifices reduce wear and maintenance.

The air filter uses the cyclone principle to remove free water and oil from air lines. Uniform filtering through tight woven wool filter element filters out particles as small as 30 microns in size. Plastic cylinder permits visual inspection of filter.

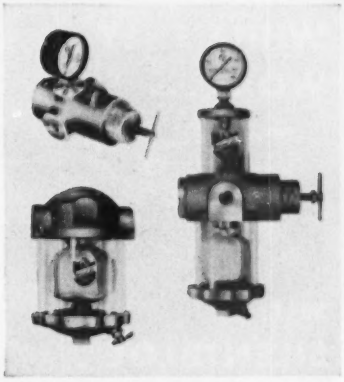
The air lubricator, having a venturi action, supplies atomized oil to pneumatic equipment. The amount of oil injected into the air stream is directly proportionate to the flow and volume of air consumed. Balanced pressure principle prevents flooding.

Also available is a combination of air regulator, lubricator, and filter in one compact assembly, simplifying installation, requiring only two connections.

Perfecting Service Co., 332 Atando Ave., Charlotte, N. C.

For additional data, request item H-601,using Handy Return Card on page 169.

NEW Equipment AND MATERIALS



Air control devices by Perfecting Service Co.

Seam and Slub Detector Protects Calender Rolls, Saves Material and Time

A new electro-mechanical seam and slub detector for calenders detects seams and slubs in material approaching the calender rolls and automatically controls the opening and closing of the nips so that the seams and slubs pass between the rolls freely.

Its installation does not interfere with the normal operation of the calender and performs the following services:

1. Protects the surfaces of the calender rolls from damage caused by seams, slubs, or foreign material passing through under pressure.
2. Reduces to inches the amount of material not calendered before and after the seam or slub.
3. Eliminates human elements in (a) the urgent need for constant alertness and (b) an operator's experienced reflex for timing.

With a few modifications this

(Continued on page 177)

NOW YOUR MACHINES CAN WHISPER WHILE THEY WORK...

with SILENTBLOC

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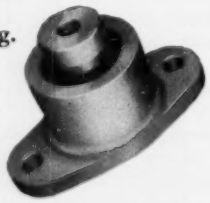

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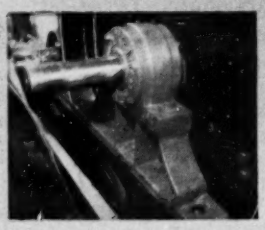

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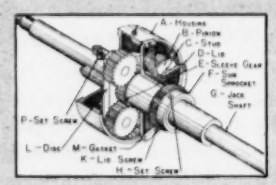

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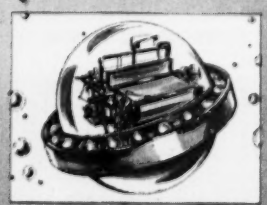

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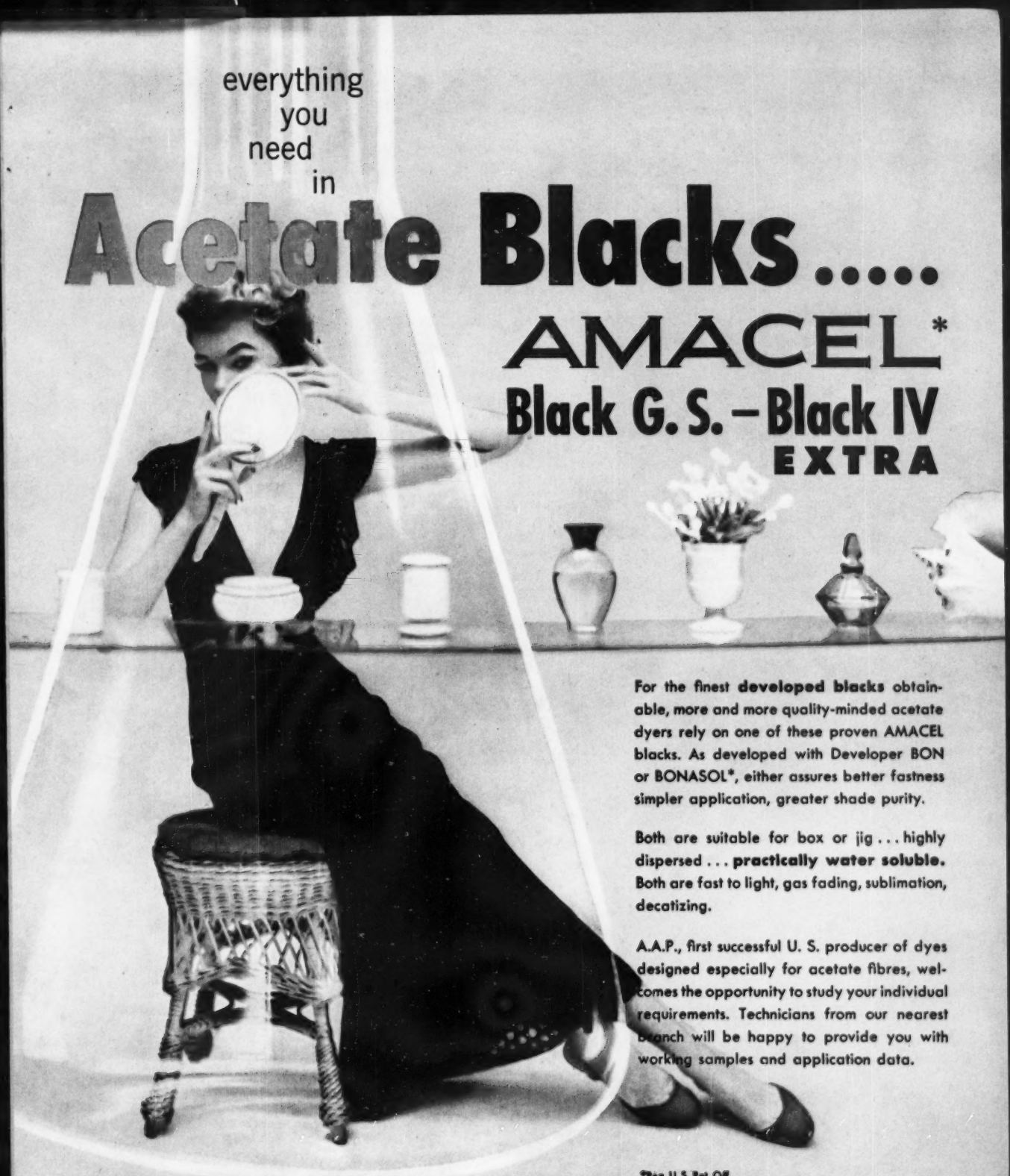

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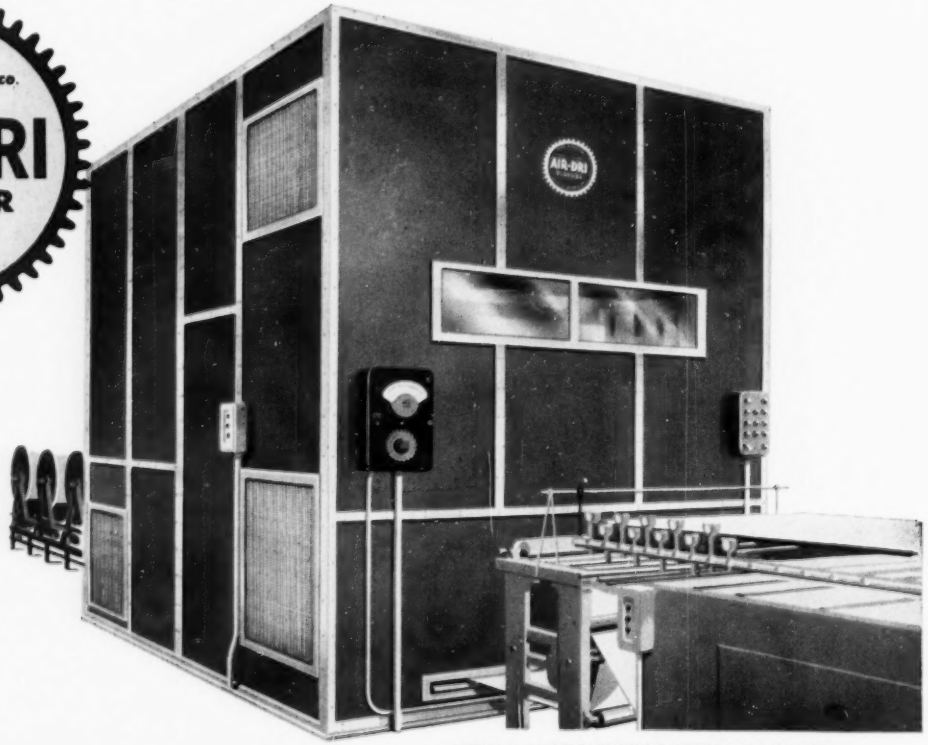

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8-3 Information on New Vinyls. Bulletin covers five types of vinyls with complete primer requirements for all types of surfaces. Gives pertinent facts on use, temperature limitations, coating thickness and coverage, relative weathering ability and cost. Write Carboline Company Division, Mullins Non-Ferrous Steel Castings Corp., 331 Thornton Ave., St. Louis, Mo.

8-4 Inganol Yellow 5GLS. Bulletin describes and displays INGANOL YELLOW 5GLAS which is first yellow in the new range of INGANOL dyestuffs for wool, silk and nylon. Write Geigy Dyestuffs, Division of Geigy Chemical Corp., 89 Barclay St., New York 8, N. Y.

8-5 Emco Rotary Cutter Winder. Bulletin gives applications, sizes and exclusive features. Write H. W. Butterworth & Sons Co., Bethayres, Pa.

8-6 Continuous Peroxide Bleaching Ranges. Booklet gives illustrations and describes uses and gives specification of Ranges. Write Rodney Hunt Machine Co., 49 Mill St., Orange, Mass.

8-7 All Purpose Ball Bearing Rotary Union. Booklet gives descriptions, typical installation, engineering data with complete illustrations. Write Perfecting Service Co., 332 Atando Avenue, Charlotte, N. C.

8-8 New Technical Bulletin on Acrylonitrile. Bulletin contains the reactions of acrylonitrile and its major uses. Properties, constant-boiling mixtures, specifications, and shipping data are included. Write Carbide & Carbon Chemicals Co., 30 East 42nd St., New York 17, New York.

8-9 Engineered Materials Handling Systems. Bulletin describes and illustrates specific examples of Gifford-Wood's material handling systems. Includes illustrations and text on nine different types of elevators, conveyors and feeders. Write Gifford-Wood, Hudson, New York.

8-10 Hoffman Stationary Vacuum Cleaning Systems. Bulletin describes operations and illustrates coordinated accessories, auxiliary equipment and portable vacuum cleaning units. Also gives applications. Write U. S. Hoffman Machinery Corp., 105 Fourth Avenue, New York 3, N. Y.

8-11 Wide Range Motor Speed Control. Brochure gives details on Variable speed electronic drives including Horsepower, Speed range and speed regulations, with cabinet and motor dimensions. Write Electro Devices, Inc. 4-6 Godwin Ave., Paterson 1, N. J.

8-12 New Materials Handling Catalog. Describes and illustrates over 40 types of trucks, special trucks, tote boxes, dolly trucks, mesting—stacking—straight side—tapered—utility receptacles, barrels and roving cans. Write Fibre Specialty Division, National Vulcanized Fibre Co., Wilmington 99, Delaware.

8-13 Ideal High Speed Ball Bearing Drafting System. Bulletin gives comparison of Ideal and Conventional drawing costs. Write Ideal Industries, Inc. Bessemer City, N. C.

8-14 Catalog on Outstanding Products of J. C. Paddock Co. Catalog features some of the standard items and equipment for materials handling. Write J. C. Paddock Co., Spartanburg, S. C.

8-15 Circulars on Birch Brothers Cloth Opening and Vacuum Extracting Range and Ball Bearing High Speed Counter Balanced Tacking Head. Gives descriptions and pictures of each. Write Birch Brothers, Inc., Somerville Machine Works, 32 Kent Street, Somerville 43, Mass.

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17. A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK — 8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management. —AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

19. INDUSTRIAL BUILDING — A 32-page booklet entitled "U.S.S. 12, U.S.S. 17 Stainless Steel Walls and Roofs for Industrial Buildings," is now available for distribution. This publication illustrates the use of type 410 and type 430 Stainless Steel Sheets in the construction of industrial and semi-industrial buildings. — U. S. STEEL CO., 525 William Penn Pl., Pittsburgh 30, Pa.

22. THE WONALANCET WAY — Is the title of an editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written. — WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

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102. "TANK TALK" — Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said — R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING — Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment. — AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

107. FINNELL SCRUBBERS — Illustrated leaflets describing and giving specifications for the Finnell floor scrubbing machines. — FINNELL SYSTEM, INC., Elkhart, Ind.

108. MAPLE FLOORING — Booklet describing finishing of Northern Hard Maple Flooring — list of M.F.M.A.-approved heavy-duty floor finishes. — MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

113. COTTON MILL EQUIPMENT — This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting, Circuit Protection, etc. — WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

117. CLEANING SYSTEMS — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system. — PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

127. SOLENOID VALVES — Bulletin "Y" lists sizes from 1/2 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

129. AIR CONDITIONING AND HUMIDIFICATION — Catalog section 101 lists and briefly describes each item of the complete Bahnson line of equipment for textile mill air conditioning and humidity control. — THE BAHNSON COMPANY, Winston-Salem, N. C.

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135. COLOR CONDITIONING — Booklet illustrated in color describes how Du Pont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid. — E. I. DU PONT DE NEMOURS & CO. INC., Finishes Div., Wilmington 98, Delaware.

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153. LAMINATED TEXTILE PLASTICS — Booklet by Synthane Corporation shows variety, application, and advantages of laminated plastic parts and supplies for the textile industry. — SYNTHANE CORPORATION, Textile Division, Oaks, Penna.

154. AIR CONDITIONING FOR THE TEXTILE INDUSTRY — Booklet shows advantages of air conditioned mills in better products and more efficient workers, and gives values of White & Co. air conditioning in particular. — WHITE & CO., INC., 1440 S. Tryon St., P. O. Box 833, Charlotte, N. C.

158. FLOATING BOTTOM ROVING TRUCK — Booklet by Excel Textile Supply shows advantages of roving truck with automatically adjusted bottom. Eliminates reaching over into truck by keeping load level within easy reach of operator. — EXCEL TEXTILE SUPPLY CO., Lee Ave., Lincolnton, N. C.

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188. PROGRESSING-CAVITY PUMPS — A new principle in pumps. Self-priming, positive displacement, uniform flow features discussed. — MOUNTAINS & MYERS, INC., Pump Div., Springfield, Ohio.

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253. TEXTILE LUBRICATION — "Lubrication" a magazine published by the Texas Co. is available. Shows methods and means of lubricating chain drives in very comprehensive form. — THE TEXAS CO., 135 East 42nd St., New York 17, N. Y.

256. METERED LUBRICATION — Bulletin 6A has 12 illustrated pages showing how central lubricating systems are applied to combers, roving frames, winders, knitters, looms, etc. — BIJUR LUBRICATING CORP., Rochelle Park, N. J.

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262. SMALL PRECISION METAL PARTS — Catalog by Torrington Company describes many special precision metal parts made by its Specialties Division. — THE TORRINGTON COMPANY, Specialties Division, 500 Field Street, Torrington, Connecticut.

265. SERVICE PROCEDURE FOR BALL BEARINGS — A helpful manual for maintenance engineers giving helpful hins on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism. — NEW DEPARTURE, Division of General Motors Corp., Bristol, Conn.

266. SILICONE LUBRICATION — Bulletin BG2-DC, describes properties of Silicone greases used in motors at high speeds and temperatures, on oven conveyors, tenter frames, can dryers, etc. Decrease by 10 to 1 in re-lubrication requirements described. — DOW-CORNING CORP., Midland, Mich.

277. SPECIAL TEXTILE MOTORS — Bulletin 51B6055A describes special features of "Quick-Clean" motors, including discussion on free air flow, prelubricates bearings, rigid cast iron frame and double insulation. — ALLIS-CHALMERS MFG. CO., Milwaukee, Wis.

280. NEW MOTOR CONTROL — 8-page promotional folder gives complete description of the new Arrow-Hart Type "LM" Loom Switch, said to be the first manual, across-the-line starter designed specifically for textiles. — INDUSTRIAL CONTROL DIVISION, Arrow-Hart and Hegeman Electric Co., 103 Hawthorne Street, Hartford 6, Conn.

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301. JOHNSON ROTARY PRESSURE JOINTS— Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices. — THE JOHNSON CORP., Three Rivers, Mich.

303. PROCESS CONTROL EQUIPMENT — Catalog containing brief description of standard and special process control equipment engineered for textile industry. Includes schematic diagrams. — MASON-NEILAN REGULATOR CO., 1190 Adams St., Boston, Mass.

309. ELECTRONIC RECORDER — 8-Page bulletin covers the TEKTOLOG Electronic Recorder which features simplified design, accuracy to +- or — 1% of full scale, and self-starting operation from low energies. — FIELDEN INSTRUMENT DIVISION, Robertshaw Fulton Controls Co., 2920 North Fourth St., Philadelphia, Pa.

314. MOISTURE CONTENT CONTROL — Bulletin F-3156 giving details of features and benefits of moisture equipment control for slashers and textile applications. — BARBER-COLMAN CO., Rackford, Ill.

321. RED-RAY BURNERS — Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame. — RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

324. STROBOTAC — Informative reprint, "Strobotac Boosts Efficency in Woolen and Synthetic Mills." — GENERAL RADIO CO., Cambridge 39, Mass.

337. COUNTING DEVICES — Catalog of Trumeter's complete line of counters for every application where counting, measuring or registering is required. Colored pictures illustrate each application. — TRUMETER COMPANY, 1265 Broadway, New York 1, N. Y.

339. NEW LUBRICATED PLUG VALVES — Illustrated booklet by The Williaam Powell Co. features a new line of semi-steel and steel lubricated plug valves. Advantages include quick and positive shut off. — THE WILLIAM POWELL COMPANY, 2525 Spring Grove Ave., Cincinnati 22, Ohio.

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341. TEXTILE ELECTRONIC TUBES — In the modern textile plant there are many electronic devices which depend on Electronic Tubes. Specialty Distributing Co. offers information on their services with regard to prompt replacement of these. — SPECIALTY DISTRIBUTING COMPANY, 425 Peachtree Street, Atlanta, Ga.

CARDING, SPINNING, WINDING . . .

401. LUMMUS DUSTLESS, STEEL BLENDING FEEDERS — Bulletin describing automatically closing, positively locking door on feiers to prevent overloading, choking. — ALDRICH MACHINE WORKS, Greenwood, S. C.

402. AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS — 24-page bulletin describing the American Monorail Auotmatic Cleaner for preventing accumulation of lint on spinning, twisting,, winding and warping machines. Also for cleaning monitors and card room ceilings. — THE AMERICAN MONORAIL CO., Cleveland, Ohio.

404. LAPLESS ENDLESS SPINNER — Bulletin and full information will be supplied on lapless endless spinner and coning belting. — TON-TEX CORPORATION, 16 West 61st St., New York, N. Y.

408. CARD GRINDING INFORMATION — Outlines care of grinders, instructions on sped to run grinders, amount of oil to add to machine and other pertinent information. — B. S. ROY & SON CO., Worcester, Mass., and Charlotte, N. C.

412. SERVICE FOLDER — Folder covers textile metal products including spinning and twisting cylinders, card screens, etc. — JENKINS METAL SHOPS, INC., Gastonia, N. C.

414. WORSTED SPINNING — Bulletin explaining and illustrating Saco-Lowell's new system for worsted spinning, from top to yarn in five economical and efficient stages. — SACO-LOWELL SHOPS, 60 Batterymarch St., Boston 10, Mass.

415. DOUBLER-TWISTER FOR LARGE PACKAGES — Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed. — FLETCHER WORKS, INC., Philadelphia, Pa.

416. THE BRIEF SAGA OF THE RING TRAVELER — An interesting history of relative to the ring traveler, which is in reality the basis of the spinning frame. John Thorpe's invention of ring traveler, the development of the spindle, and the invention of Rabeth's Bolster type spindle are covered. — NATIONAL RING TRAVELER CO., Pawtucket, R. I.

418. PACIFIC CONVERTER — Graphic description of machine that cuts any synthetic tow; and when desired, blends it with wool or staple sliver, keeping the fibers parallel, and issuing an even sliver of accurate blend. — WARNER & SWASEY CO., Cleveland, Ohio.

419. TEXTILE APRONS — Illustrated folder showing the steps in manufacture of genuine leather aprons for all types of long draft spinning and card room machinery. — TEXTILE APRON COMPANY, East Point, Ga.

420. AUTOMATIC FILLING WINDING — Eight page, two color booklet describing the operation and mechanism of the Hacoba winder. — ATKINSON, HASERICK & CO., 211 Congress St., Boston, Mass.

421. CARD ROLL COVERS — Brochure describing the Davis Seamless Roll Covers. Lists advantages, specifications and offers free trial. — THE TEXTILE LABORATORIES, P. O. Box 1003, Gastonia, N. C.

425. HANDY REFERENCE TABLES — Folder showing spinning traveler speeds, sizes of ring flanges, etc. — VICTOR RING TRAVELER CO., Providence, R. I., and Gastonia, N. C.

426. UNIRAIL UPTWISTER — Bulletin describes Universal Winding's headless package or bobbin take-up Unirail Uptwister which gives you higher yarn quality and better packages at faster speeds and lower costs, according to the bulletin. Well illustrated with advantages discussed — UNIVERSAL WINDING COMPANY, P. O. Box 1605, Providence, R. I.

430. DIXON DATA — Dixon house organ entitled "Dixon Data," which is available in a new form every other month. These house organs contain information on spinning problems as they relate to saddles and component parts. — DIXON CORP., Bristol, R. I.

432. PRECISION TEXTILE WINDING — Bulletin on Kiddie Tensions and Density control for winding rubber cones. — WALTER KIDDE & CO., INC., Belleville, N. J.

435. DOUBLE DECK TWISTERS — Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers. — U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

436. MAINTENANCE INFORMATION FOR YOUR SCOTT TESTER — Booklet containing maintenance data for calibration of Scott Testers, clamps for testers, gear-box lubrication, and recording. — SCOTT TESTERS, INC., Providence, R. I.

438. HEADLESS PACKAGE TWISTER ELIMINATES REDRAWING — Literature shows high-speed Face Drive Twister for accurately building tapered or straight-end headless packages which go direct to quilling or warping without redrawing. — U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

445. ROLLER BEARING SPINDLES — Illustrated booklet showing various types of Marquette Roller Bearing Spindles. The unique full-floating footstep bearing is pictured in cut-away views, and its advantages are described. — THE MARQUETTE METAL PRODUCTS CO., 1145 Galewood Ave., Cleveland, Ohio.

447. CONE WINDER — Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply. — FOSTER MACHINE COMPANY, Westfield, Mass.

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459. TENSION CONTROLS — Folder describing tension compensation and automatic tension controls. Three models — Standard, Warp, and Double Disc fully described with specific application. — WALTER KIDDE & CO. INC., Belleville 9, N. Y.

461. PRECISE WIND MACHINE — Form A-92 describes the Foster Model 75 widely used for winding straight or pineapple cones and tubes of rayon, nylon and other filament yarns. — FOSTER MACHINE COMPANY, Westfield, Mass.

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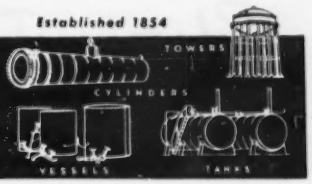

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462. TEXTILE MACHINERY PARTS CATALOG —A 24-page illustrated catalog describing the complete line of Dayco and Thorobred textile machinery parts including Cots, Aprons, Loop Pickers, Lug Straps, etc. — DAYTON RUBBER CO., Dayton, Ohio.

467. CARD CLOTHING — 8-page booklet by Benjamin Booth Company describes Strip-O-Matic Card clothing and its advantages. — BENJAMIN BOOTH COMPANY, Allegheny Avenue & Janney Streets, Philadelphia, Pennsylvania.

469. SHORT CUT TO STAPLE FIBER SPINNING — Color brochure shows the ten steps in operation of the Turbo Tow Stapler, gives technical details and diagrams. — TURBO MACHINE COMPANY, LANSDALE, Pa.

471. FACTS ABOUT YOUR FLYERS AND SPINDLES — Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins. — IDEAL MACHINE SHOPS, Bessemer City, North Carolina.

474. BALL BEARING COMB BOXES — Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-a-way views shown.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia.

475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES — Color Booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies. Roll covering for Cotton, Silk and Synthetic and Woolen and Worsted systems. An excellent guide book. — ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL — New brochure by Cen-Tennial Cotton Gin Co. gives complete data on the Cen-Tennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described. — CEN-TENNIAL COTTON GIN CO., Columbus, Ga.

477. METALLIC CARD CLOTHING — Color booklet by Platt Brothers describes their Patent Metallic Card Clothing. Well Illustrated it gives applications, types of clothing for all fibers, etc. — TEXTILE INDUSTRIES, 806 Peachtree Street, Atlanta, Georgia.

478. TIPS ON CARDING PROCEDURE — Monthly bulletin by Ashworth Brothers includes many useful tips and advice on carding operation, maintenance and care and is available to anyone interested. Bulletin is a reprint of section appearing on green paper in this issue. — ASHWORTH BROTHERS, Fall River, Mass.

WEAVING, SLASHING . . .

501. LOOMS — An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed. — CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES —Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery. — VEEDER-ROOT, INC., Hartford, Conn.

503. WEAVER'S KNOTTER — A catalog on the Boyce Weaver's Knotter giving as few instructions as to it's use, recommendation as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter. — A. B. CARTER, INC., Gastonia, N. C.

504. LOOM SUPPLIES — Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products.—E. H. JACOBS NORTHERN DIV., THE BULLARD CLARK CO., Danielson, Conn.

506. SLASHING HINTS — A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc. — SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

507. VARIABLE SPEED SLASHER DRIVE — Reeves bulletin G-503 describes their Serve-Control slasher drive which automatically controls tension from creel to beam, and which controls the stretch in the slasher. — REEVES PULLEY CO., Columbus, Ind.

508. LOOM PRODUCTION CHARTS — Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds. — RALPH E. LOFER CO., Greenville, S. C.

509. MULTI-MOTOR SLASHER DRIVES — Booklet designed to bring the descriptive information on multi-motor slasher drives up to date, and emphasize the improvement in the drive through the use of Roto-trol for the control of winding tension. — WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

511. ALUMINUM BEAMS — Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types. — HAYES INDUSTRIES, INC., Jackson, Mich.

517. LOADING SYSTEM — Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices. — THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS — 20 page Catalog N. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties. — MILTON MACHINE WORKS, INC., Milton, Pa.

524. JOHNSON WARP SIZES — 12 page fully illustrated booklet, describing the 7 cylinder sizer with stretch indicator and finger-tip control of stretch. A point-by-point analysis. — CHARLES B. JOHNSON MACHINE WORKS, Piercy & Holsman Sts., Paterson, N. J.

530. ROTARY UNIONS — New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count." — PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

536. HOMOGENIZER IMPROVES SLASHING — Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better sizes. Gives installation pictures and specifications. — MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Massachusetts.

537. WEST POINT'S HOT AIR SLASHER — Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specification included. — WEST POINT FOUNDRY AND MACHINE WORKS, West Point, Georgia.

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539. AUTOMATIC REGAIN CONTROL OF RAYON AND SYNTHETIC FIBRE SLASHING — Technical booklet by Minneapolis-Honeywell gives data on their electronic, multi-range "Moist-O-Graph" system for controlled regain. Write for No. B54-66. —MINNEAPOLIS-HONEYWELL REGULATOR CO., Station 64, Phila. 44, Pa.

540. SLASHING EQUIPMENT — Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each. — TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

545. NOPCO CHEMICAL DATA SHEETS — Now available are Nopcostats, Nopco Sizes N and D. Important points in Warp Sizing, Interpretation of Analysis, Wetting Agents, Balanced wool and worsted oils, Acetate Warp Sizing, Viscose warp sizing, Rayon soaking. — NOPCO CHEMICAL CO., Harrison, New Jersey.

DYEING, FINISHING CLOTH ROOM . . .

602. CONTROLLED VAT DYEING — Calco technical booklet No. 828 discusses Stabilization of Vat Dyes at Elevated Temperatures, Instrumental and analytical measurements, Leuco Potentials. — AMERICAN CYANAMID CO., Calco Chemical Division, Bound Brook, New Jersey.

606. HYDRAULIC POWER UNITS — Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc. — B. F. PERKINS & SON, INC., Holyoke, Mass.

608. WASHERS FOR SCOURING, BLEACHING, ACIDIFYING — Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction. — C. G. SARGENT'S SONS CORPORATION, Graniteville, Massachusetts, U.S.A., for Bulletin 195.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY — Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery. — PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK — YARN — HOSIERY — Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs. — FLETCHER WORKS, INC., Philadelphia, Pa.

616. FINISHING DRIVES — 32-page booklet covers complete drives Westinghouse has engineered for the textile finishing industry. Describes all types of finishing ranges and discusses advantages of Westinghouse drives for these installations. "Packaged" drives for batch processes covered. — WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING — Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation. — TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS — Booklet explains advantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job. — INTERNATIONAL SALT COMPANY, INC., Scranton, Pennsylvania.

623. SELVAGE GUIDER — The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures and advantages discussed. — MARSHALL AND WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS — Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions. — C. G. SARGENT'S SONS CORP., Graniteville, Mass.

631. ELIMINATE DYE-BATH SHOCK — Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's-feet, uneven shade, creasing caused by too rapid cooling of goods. — Write for data sheet, 229-60, FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS — Series 1-C illustrated bulletin detailing right and wrong application and use of washers. — E. H. JACOBS NORTHERN DIV., Danielson, Conn.

637. BALL BEARING TURN TABLE — Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are placed in position ahead of a Scutcher or cloth opening machine. Advantages discussed. — BIRCH BROTHERS, INC., 32 Kent St., Somerville, Mass.

638. DYEING AND FINISHING MACHINES — Booklet by James Hunter Machine Company shows pictures, applications, and advantages of following: "Vapo Jet" Dryer; "Hunter Dye Beck"; "Flexreel" Rope Washer; Continuous Cloth Washer; Model "S" Dye Kettles; Compartment Washer; Fulling Mill; Top Dyeing Machine; "Uniflow" High-speed Tenter Dryer; Cloth Carbonizer. — JAMES HUNTER MACHINE CO., North Adams, Mass.

639. ROTARY DYEING MACHINE — Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc. — SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

653. GUIDERS AND TENSION DEVICES — Illustrated and described are the Mount Hope Precision Guiders and open width Tension Devices used for accurate, straight line guiding of open width goods. Bulletin SG-PG. — MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass.

654. ION EXCHANGERS — Bulletin details a general history of ion exchange, gives data on proper selection of ion exchangers and lists general applications in the treatment of water. — PERMUTIT COMPANY, 330 West 42nd Street, New York 36, New York.

655. PAPER TUBES FOR YARN AND CLOTH— Complete data to help you solve your paper tube problems. Overnight delivery of yarn and cloth paper tubes and boards. Shows how warehousing of these items can be avoided. — TEXTILE PAPER PRODUCTS, Cedartown, Ga.

658. BEAM MULTIPLE DYEING — Information on the Morton System Horizontal Beam Dyeing machine is available. Features include minimum handling of beams and the use of a common or individual dyebath for as many as six beams.—MORTON MACHINE WORKS, 1718 Third Avenue, Columbus, Georgia.

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700. COTTON FINISHING OILS — New booklet by Twitchell devoted to finishing Sanforized Fabrics contains such specific data as re-wetting speed, imparted softness, resistance to yellowing, and "balance" of these properties. — EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati, 2, Ohio.

701. MAGNESIUM APPLICATIONS — Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry. — DOW CHEMICAL CO., Midland, Mich.

702. DEFOAMERS — Bulletin AA-2 lists uses and properties of Antifoam A, which can be effectively used at 10 to 200 ppm in most industrial applications. Emulsions available, improve dispersability in aqueous systems. — DOW-CORNING CORP., Midland, Mich.

704. FUNDAMENTALS OF INDUSTRIAL WATER TREATMENT PROCESSES — 24-Page booklet entitled "If You Use Water" discusses the fundamentals of the three major classifications of industrial water treatment based on ion exchange: softening, desalkalization, and deionization. — ROHM & HAAS COMPANY, Resinous Products Div., Washington Square, Philadelphia 5, Pa.

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715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing. — ARKANSAS CO., INC., Newark, N. J.

721. SURFAX 1288 — Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent. — E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

727. COLOR PRINCIPLES — Booklet available from Sandoz Chemical describes the fundamental principles of color and its measurement. Booklet has been adopted by several of the leading textile schools. —SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y.

728. UNIQUE YARN AND DYEING SERVICE—Booklet by Franklin Process tells why Franklin Process Yarn Dyeing Service is one of the top package yarn dyeing services. Also includes table showing relative fastness of dyestuffs used on various fibers. — FRANKLIN PROCESS CO., 564 Eddy St., Providence, R. I.

729. STATIC AND STATIC CONTROL — Papers deal with historiacl background of static electricity and the problems caused by it, along with methods of controlling them. — DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

733. WOOL OILS — Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Proxol T, an outstanding wool oil. — PROCTOR AND GAMBLE DIST. CO., Cincinnati, Ohio.

734. BLEACHING WITH PEROXYGEN CHEMICALS — Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52, now available. — BUFFALO ELECTRO-CHEMICAL CO., INC., Station B, Buffalo 7, New York.

745. RAPIDASE FOR DESIZING — Bulletin explaining in detail the properties and characteristics of Rapidase. — WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

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753. TRITON X-100 — Booklet available describing this highly concentrated detergent and wetting agent, main uses fully discussed and chemical properties brought out. — ROHM & HAAS COMPANY, Philadelphia 5, Pa.

757. THE CHEMISTRY OF CYNANURIC CHLORIDE — Very comprehensive technical text by American Cyanamid Co. Gives Physical Properties, Reaction Chart, Chemical Properties, Potential Applications, Toxicity, Table of Alcohol Reactions, Table of Amine and Related Compound Reactions. — AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, New York.

762. ONYX TECHNICAL DATA SHEETS — Two new data sheets describing the use, advantages, and applications of Xyno Resins 8-69 and Xyno Resin 362. — ONYX OIL & CHEMICAL COMPANY, Jersey City 2, N. J.

763. TEXTILE CHEMICALS — Booklet, well executed and in color, tells of American Viscose Company's "Avisco" textile chemicals for lubricating, softening, static control, sizing and finishing. — AMERICAN VISCOSE CORPORATION, Textile Research Department, Marcus Hook, Pa.

766. DU PONT PEROXIDE BLEACHING SYSTEMS — New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included. — E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

768. TEXTILE CHEMICALS — Buying guide and reference book giving facts about Amalgamated Products, the fabrics on which they give best results, their proper application, and their chemical composition. — AMALGAMATED CHEMICAL CORP., Philadelphia 34, Pa.

769. SURFACE TENSION DEPRESSANT — The booklet, "Mercerizing and Alkamerce — The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing. — HART PRODUCTS CORP., 1440 Broadway, New York, N. Y.

773. TECHNICAL CHEMICAL DATA SHEETS—Complete set for dyeing, printing and finishing operation, showing major operations, performance and advantages. — ONYX OIL & CHEMICAL CO., 190 Warren St., Jersey City 2, N. J.

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774. **ROYCE TEXTILE CHEMICALS** — This booklet briefly describes the leading Royce products for textile processin, printing, dyeing and finishing. — ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING . . .

801. **THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE** — Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

808. **REINER WARPER** — Full width and sectional warpers for all requirements in the knitting and weaving industry fully described in recent catalog. — ROBERT REINER, INC., Weehawken, N. J.

818. **FORGED HEAD ALUMINUM BEAMS** — Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams. — MILTON MACHINE WORKS, INC., Milton, Pa.

823. **VARIABLE STRIPER** — Booklet available describing Supreme's complete line of automatic Variable Stripers and Pattern Placer machines. — SUPREME KNITTING MACHINE CO. INC., 105 Johnson Ave., Brooklyn 6, N. Y.

828. **THE KIDDE KNITTER** — Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it. — KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

924. **BUTT-TACKING SEWING MACHINE** — Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking. — THE MERROW MACHINE COMPANY, 29 Laural Street, Hartford, Connecticut.

925. **SEWING MACHINES** — The Lock-Stitch bulletin No. 258 describes and illustrates new, high speed, single needle Union Special Lock-Stitch machine for general purpose industrial sewing operations. — UNION SPECIAL MACHINE CO., 407 N. Franklin St., Chicago 10, Illinois.

MATERIALS HANDLING . . .

1003. **CASTERS AND WHEELS** — 192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this. — DARNELL CORP., LTD., Long Beach 4, Calif.

1004. **PITTSBURGH COLLAPSIBLE CARGO-TAINERS** — Stacked they lock in place and permit visible inventory; collapsed they rest in small area. Base permits entry by all types of lift trucks. Write for brochure MH-15. — PITTSBURGH STEEL PRODUCTS COMPANY, Pittsburgh 30, Pa.

1006. **LANE CANVAS BASKETS** — 16 page illustrated booklet describing the Lane line of canvas baskets for textile use. — W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. **OVERHEAD HANDLING EQUIPMENT** — 56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem. THE AMERICAN MONORAIL CO., 13106 Athens Ave. Cleveland 7, Ohio.

1008. **CASTERS AND WHEELS** — An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters. — THE COLSON CORP., Elyria, Ohio.

1010. **CONVEYOR KEY BOOK** — A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results. — LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. **TEXTILE TRUCKS** — Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber utility trucks, etc. Uses and description. — EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1013. **"A STORY OF TRACTOR TOOLS AND THEIR USE"** — Comprehensive illustrated guide effectively present in cartoon-style the many principal uses for this type of equipment. — HYSTER CO., 2903 N.E., Clackamas St., Portland 8, Ore.

1030. **CDF RECEPTACLES** — This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item. — CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

1032. **ELECTRIC CHAIN HOISTS** — Bulletin 852 describing Robbins & Myers Type "JC" Electric Chain Hoists. Capacities 500, 1000 and 2000 pounds. — ROBBINS & MYERS, INC., Hoist & Crane Div., Springfield, Ohio.

MISCELLANEOUS . . .

1102. **BALING PRESSES** — An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models. — ECONOMY BALER CO., Ann Arbor, Mich.

1103. **UNBRAKO SCREWS** — Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data. — STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1108. **FABRICATION OF U. S. STAINLESS STEELS** — 136-page book covering use of stainless steel in textile equipment from cutting to cleaning. Includes corrosive-resistance tables for chemicals. — CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh, Penn.

1111. **BRUSHES** — A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry. — GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. **THE RANDOM WEB PROCESS** — Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams. — CURLATOR CORPORATION, Textile Division 565 Blossom Rd., Rochester, N. Y.

1113. **MACHINE KNIVES** — Catalog and price sheets dscribing this company's line of knives for use on textile machinery. — TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. **TEXTILE WRAPPING MACHINES** — Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made. — HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. **BALING PRESSES** — Bulletins available describing this company's line of motor-driven and hydraulic baling-presses' for finished-goods, textile fibers, wool, and waste of all kinds. — LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wis.

NEW Equipment AND MATERIALS

(Continued from page 165)
equipment can be used for the control of shearing machines and inspection of cloth.

The detection device is self-clearing—frees itself of lint. Maintenance can be performed by personnel in mill.

B. F. Perkins & Son, Inc., Holyoke, Mass.

For additional data, request item H-127, using Handy Return Card on page 169.

Stainless Steel Vacuum Cleaner for Corrosive Areas

The Finnell Model 10B vacuum cleaner for floor maintenance is now available made of stainless steel for use in dyeing, bleaching, and finishing plants or other mill areas where corrosive atmospheres are encountered. Thus long service is assured.

Designated Model 10BS, it offers wet and dry pick-up, bi-pass motor prevents grounds, accessories for every cleaning job, portable, light, sturdy construction.

Also available in stainless steel is the Model 2R mop truck which features: 56-gallon capacity, mop shield prevents mop dipping into dirty water, designed for moving through congested areas since tank corners and frame are rounded and wheels are recessed.

Finnell System, Inc., Elkhart, Ind.

For additional data, request item H-712, using Handy Return Card on page 169.

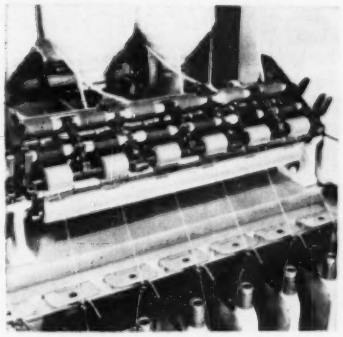
Plastic Thread Spool Is Light, Economical

A new plastic thread spool is now available which is lighter than wood and more economical than paper. The spool is also more easily kept clean.

The spool is currently available in three standard sizes, and can be supplied in 14 colors, solid or banded, flocked, ribbed, knurled, or with lacquer tips.

Sonoco Products Co., Hartsville, S. C.

For additional data, request item H-713, using Handy Return Card on page 169.



Drafting zone of Whitin "Superflex" spinning frame for cotton and spun rayon.

Traverse from 8" - 11" with 39" Wide Cotton Spinning Frame

The new Whitin "Superflex" spinning frame for cotton and spun rayon fibers is a 39" wide machine with provisions for traverses from 8" to 11", offering quality production, flexibility, performance, and economy in operation.

Drafts of 50 and higher can be successfully run on its "Super-Draft" drafting system which employs a cradle and two flexible aprons. The maximum draft is limited by the fiber length and type. Whitin-Climax ball bearing top rolls on the front line and Whitin-Cleandraft non-lubricated toprolls on the middle and back lines are standard and virtually eliminate the necessity for lubricating the top rolls. Roll picking and cleaning costs are reduced; yarn quality and evenness are improved. A top suspended roll arrangement can be supplied at moderate extra cost.

Compound gearing is used in the new streamlined head end for controlling the roll speed. Changing from one constant to another is made simple. In most instances, only one gear which is interchangeable with the normal change gear, must be changed to obtain the desired new constant. The draft constant can be established at one of several figures to conform to the exact requirements of the mill. The head end is so constructed that the high roll stands may be used without altering the main head casting.

Other features of this new spinning frame include: For large package spinning two types of brakes are available—a knee brake or hand-operated brake; when reverse twist is required, a second line of tape tension pulleys is necessary—twist reversal is effected by changing position of swing arm in head end and by changing direction of rotation of motor; more effective counterbalancing of ring rail is provided for in use of accurately adjusted springs, eliminating more than 500 pounds of dead weight; Bijur One-Shot lubrication system for gearing; antifriction bearings which support cylinder shaft are lubricated by special Zerk fittings which are located in easily accessible positions along outside edge of frame; standard textile motors can be used for driving frame; several types of motor drives are available; frame can be equipped with Pneumafil without change, also the American MonoRail Undercleaner.

Whitin Machine Works, Whitinsville, Mass.

For additional data, request item H-714, using Handy Return Card on page 169.

Automatic Spooler for Mills with Large-Package Spinning

Developed especially for use with the new large package spinning frames which produce up to 16-ounce bobbins is the Barber-Colman Type "D" automatic spooler which will spool packages weighing up to 6.00 pounds. In general, the operating principle of this machine is similar to that of the Type "C" machine which, incidentally, is not obsoleted by this new large-package spooler. It does not have any advantage over the Type "C" for mills that still use normal spinning packages, the manufacturer states.

The traveler has a number of new features, including an improved vacuum system, various added safety devices, and a new means for bypassing a running thread. The individual package supports have a straightline forward and back motion instead of swinging. Each package spindle has a built-in brake.

Barber-Colman Co., Rockford, Ill.

For additional data, request item H-715, using Handy Return Card on page 169.

Edgeguide Prevents Fabric Misalignment

The new Frankel Automatic Edgeguide detects and corrects extremely small misalignment of moving webs, sheets, or fabrics. Textile applications are in printing, finishing, coating, and laminating.

The basic parts of the Edgeguide

are an alignment sensing head and an automatic control and actuator. The sensing head detects minute misalignment of fabric proportionately to the relative position of air pressure nozzles, which are adjustable for the required degree of sensitivity. The nozzles are not in contact with the moving material, and their accuracy is not affected by bouncing or tension variations.

A total accuracy of ± 0.012 inch on fabrics with a "wander" of ± ⅛ inch for every 100 inches of fabric length at 750 ft/min may be achieved.

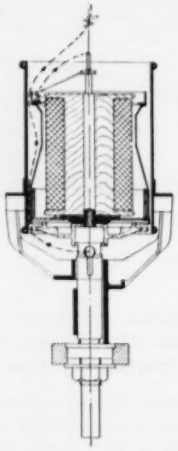
W. T. Howald Co., 182 Sigourney St., Brooklyn 31, N. Y.

For additional data, request item H-716, using Handy Return Card on page 169.

Very Low Yarn Tension with this 2-for-1 Uptwister Spindle

For use in throwing plants where high quality, high twist yarn is produced is the Landolt 2-for-1 twisting spindle which can be installed on any conventional uptwister with swing arms for spindle mounting. Two sizes are available—one that will accommodate a one-pound package and another for a two-pound package.

Decreased power consumption and 75-80% increase in production are two advantages to be derived from



Cross section of Landolt 2-for-1 twister spindle (Gubelin International).

use of this spindle which can be operated at speeds from 10,000 to 14,000 rpm. Threading is very simple. One arm flyer is utilized. Any size of bobbin can be accommodated.

The design of this spindle is such that extremely low yarn tensions can be maintained. For instance, a 45 denier nylon with 60 turns per inch may be twisted at 10,000 rpm, maintaining an even yarn tension of 1/10th of a gram per denier. Yarn tension can be held within .03 grams per denier whether the bobbin is empty or full or unwinding from bottom or top.

This spindle has two cylindrical casings (see accompanying drawing) —the hour-glass shaped thread guide into which the bobbin is set, and the straight cylindrical balloon guard which contributes to a more even yarn tension and also protects the balloon on an adjacent spindle while the operator is working on another.

Another feature of this spindle is the sturdy mounting of the magnet holders which eliminate adjusting the magnets when the spindle is in operation.

Gubelin International Corp., 35 West 53rd St., New York 19, N. Y.

For additional data, request item H-717, using Handy Return Card on page 169.

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

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Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"Of all the industrial engineers with whom we have had contact, we entertain a higher regard for this organization than any other, and that is based on results entirely."
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Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

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Uster Tester Attachment Counts Yarn Imperfections

The Uster Hy-Lo Indicator, when connected to the Uster evenness tester, automatically counts the number of heavy and light imperfections in yarn, roving, sliver, sliver laps, and picker laps.

Uster Corp., 2516 Wilkinson Blvd., Charlotte, N. C.

For additional data, request item H-718, using Handy Return Card on page 169.

Device Automatically Tags Flaws in Fabric

Now available to weaving mills, dyeing and finishing plants, etc., where it is necessary to tag flaws in fabrics being processed, is the "Mark-Fix 3," an automatic marker which saves a substantial amount of time.

By exerting pressure on the handle one time, the marking thread is simultaneously drawn through the selvage of the fabric, knotted, and cut, leaving the marking machine ready for the next operation without further adjustment.

One spool of thread is sufficient for 1,000 tags; it can be replaced in-

stantaneously by a single movement of the hand.

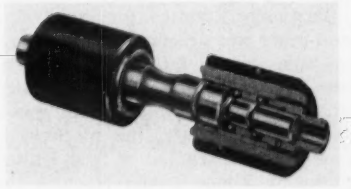
Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

For additional data, request item H-719, using Handy Return Card on page 169.

Ball Bearing Top Roll Features 20,000-Hour Lubrication Interval

A new grease-lubricated ball bearing top roll designed to prevent oil staining yarns requires lubrication only once every 20,000 working hours.

Reliable seals in the ball bearing units eliminate the possibility of oil soiling the drafting mechanism or



the yarn. When grinding the cots, dirt cannot enter the bearings.

Bearing friction is insignificant and constant, providing accurate and uniform drafting.

Suitable tools for grinding and searing the cots can be supplied.

Rolls are available for cotton and worsted drafting systems.

SKF Industries, Inc., Front St. and Erie Ave., Philadelphia 32, Pa.

For additional data, request item H-118, using Handy Return Card on page 169.

Clips Last Longer on This Tenter

The patented "Novel Type Easing Arrangement" at the delivery end of the Morrison standard finishing tenter permits the gate of the tenter clip to drop smoothly, eliminating bouncing of gates and thereby maintaining longer life of the clip.

The rugged construction of this tenter provides maximum rigidity at high speeds. Composition wear strips mounted on rails are readily replaceable.

Morrison Machine Co., 1171 Madison Ave., Paterson 3, N. J.

For additional data, request item H-720, using Handy Return Card on page 169.

High Speed Cord Maker Saves Time and Yarn

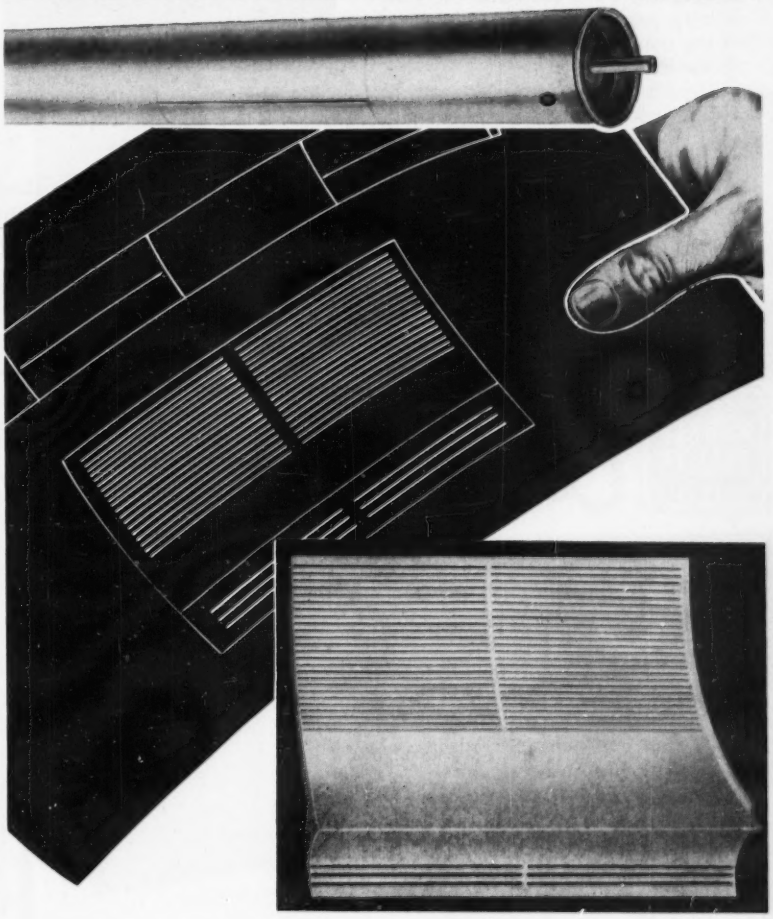
A new cord maker adaptable to all textile fibers, including plastic strand, has in actual tests produced up to 1000 ft. per hour, dependent on type of stitch required. It operates silently and is compact, streamlined, and simple in design. There is practically no maintenance cost. An operator can be taught to run the machine in a few minutes.

The saving in operator time and production time is substantial. Approximately 20% saving of yarn is effected over conventional methods of cord making. Clutch speed drives eliminate the necessity of pulley shifting. Electric stop motion is also standard equipment.

Because the Jonsil Hi-Speed Cord

NEW Equipment AND MATERIALS

40 YEARS CONTINUOUS SERVICE TO THE TEXTILE INDUSTRY



ENGINEERED products are CHEAPER in the long run

Thousands of Jenkins Dynamically Balanced Cylinders and Card Screens in use over a period of ten years testify to that fact.

JENKINS METAL SHOPS, Inc., GASTONIA, N. C.

Qualified Engineering

Maker works on a single-end knitting principle, winding, warping, and twisting operations are eliminated. The yarns are fed overend directly from mill packages.

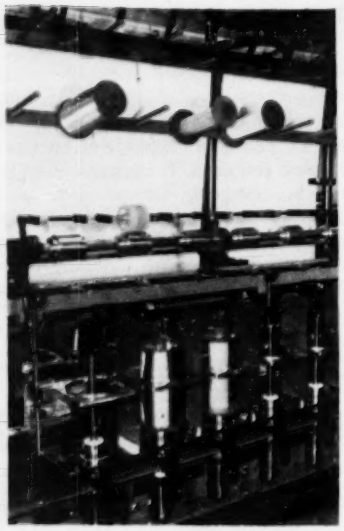
C. G. Sargent's Sons Corp., Graniteville, Mass.

For additional data, request item H-721, using Handy Return Card on page 169.

All-Purpose Twister

The Model-4 twister is exceptionally heavy and easily adaptable to the requirements for any particular type of twisting. Twist placed in the yarn is very even and regular, regardless of the number of plies or the weight of the single yarns.

Spindle driving assembly can be arranged so that rotation of spindles can be readily changed to obtain twist direction desired. Steel cylinder is carried high up on the chassis with the result that many of the air currents set up by its turning are controlled so that they do not throw lint into the yarn and the underside of the frame is easier to clean. All parts are easily accessible for inspection and cleaning.



Model-4 twister (Saco-Lowell).

A new builder motion and lifter mechanism is incorporated in the machine. Rails are freer from vibration. Springs are used to counterbalance the ring rails. Separators are mounted in stationary position and extend from above bobbin down to within ¼" of tapes, preventing the wiping of a broken end against adjacent bobbins.

Suitable roll assemblies are available for wet or dry twisting, for ordinary cotton twisting, for forming and cabling, and for tire cords and other products of this type, as well as for rayon, paper, wool, and worsted.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item H-112, using Handy Return Card on page 169.

Constant Linear Cloth Speed Feature of Completely Automatic Dye Jig

Particularly suited for the dyeing and other wet processing of light and medium weight fabrics is the Mezzera tensionless automatic jig which provides constant linear cloth speed. Developed in Italy, the machine is now being marketed in the United States by James Hunter Machine Co.

The head end automatic drive is procured from the Italian dyeing and finishing machinery manufacturer and fitted to the enclosed stainless steel jig built by Hunter.

Some features of the drive are: automatic reversing and stopping; gradual starting; automatic passage counter; adjustable external brakes; differential gear mounted on ball bearings for compensation of speeds; cast iron base containing all the mechanical, electrical, and automatic control devices.

The totally enclosed jig affords uniform temperature at all points of the tank, better dyeing results, savings in steam and dyestuffs.

James Hunter Machine Co., North Adams, Mass.

For additional data, request item H-722, using Handy Return Card on page 169.

Avoid Cotton Classing Errors Inexpensively

Embodying the same principles as the Senior Model Gardner-Nickerson Cotton Colorimeter—an automatic, direct-reading instrument for use in cotton classification—is a new instrument, the Junior Model, which incorporates certain construction changes making it possible to be produced at a much lower price, with

BARBER COLMAN

UNIT HEATER
Control Center

Modern way to control unit heaters

In this handsome, prewired cabinet, you house all necessary controls for a unit heater—thermostat, disconnect switch with overload protection, summer-winter switch, pilot light, and terminal block. All field wiring leads to the numbered terminal strip. You reduce installation costs substantially. You get more, for less.

STREAMLINED CABINET
... for surface mounting. Adapter ring for flush mounting optional. Cabinet finished in attractive hammered gray.

ASK

For Bulletin No. T-1 ... gives you complete data plus typical wiring diagrams.

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Automatic Controls • Air Distribution Products • Industrial Instruments
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no loss in effectiveness.

With either model, a classer, without fatigue or guess work, can back up his judgment with positive evidence obtained on this instrument, regarding the color and variation in color, of any lot or shipment of cotton or of cotton linters. Results can be recorded against a diagram of the official grade standards, or may be read off in terms of numerical scales that are plainly visible on the indicating chart.

The Junior model represents an economy in operations, for it helps avoid classification errors, allows the classer to blend to formula, permits better control in both buying and selling.

Operation of the instrument is easy: (1) select and prepare a representative cotton sample face; (2) press firmly into position on glass panel of exposure head; (3) step on foot switch to activate indicator; (4) read result on scale.

Macbeth Sales Corp., P. O. Box 950, Newburgh, N. Y.

For additional data, request item H-723, using Handy Return Card on page 169.

Bonded Nylon Spindle Tape Increases Production

A nylon spindle tape, made endless by a special bonding process, is now available in this country. The tape, made for both spinning and twisting frames, is woven of staple nylon and is subjected to a heat-stabilizing and stretch treatment immediately after weaving. It is bonded with a 0.005-inch-thick film of a low-melting nylon polymer.

Tests show that the spindle tape, called Kennylbond, increases average spindle speed as much as 3.2 per cent, reduces power consumption from 7 to 20 per cent, and has a working life at least three times that of cotton tape.

The effectiveness of Kennylbond is attributed to its high strength, together with its thinness and flexibility, which permits a greater area of contact with the whorl of the spindle and reduces both slip and power consumption. Because of the lighter density of the tape, the action of centrifugal forces is less, which is particularly important at high spindle speeds.

Wm. Kenyon & Sons, Ltd., Perth Amboy, N. J.

For additional data, request item H-724, using Handy Return Card on page 169.

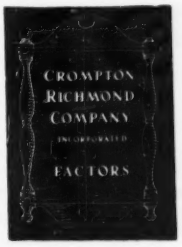
V-Belt Matching Eliminated with this Drive

A new concept of power transmission is the Poly-V Drive.

The Poly-V Belt, which is a single, endless rubber belt with a series of parallel V ribs molded lengthwise around the inside circumference, has an uninterrupted, high-strength member of synthetic cords across its entire width.

The Poly-V sheave grooves are designed to mate precisely with the belt ribs, and since the belt covers the full width of the drive member (not an assembly of several V-belts), the load is distributed equally over the entire driving surface. This provides twice the contact area of a comparable multiple V-belt application, so that Poly-V Drive gives up to

NEW Equipment AND MATERIALS



The Human Factor

Maintaining That Strength

The sharp shift of population and industry to the South and Southwest has made great demands on working capital.

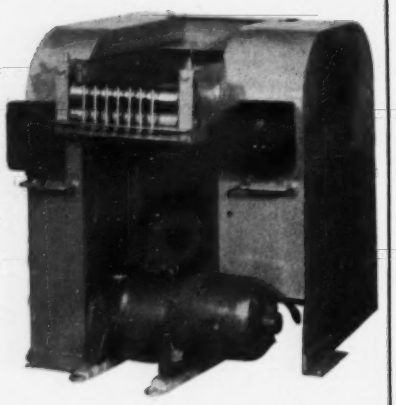
If your cash resources are not unlimited, then they must be made to turn over much more frequently. Your inventories move out of the place no faster than *cash* can move them. If receivables bog down, so does production... and distribution.

Crompton Factoring takes over your receivables, gives you the cash immediately, and assumes all credit risks and collection chores. This reduction in receivables overhead more than pays our factoring charges.

Representative: VON D. OEHMIG, Green Island Hills, Columbus, Ga.

CROMPTON-RICHMOND CO., INC.
1071 Avenue of the Americas, New York 18, N. Y.

Cut Precision Flock



TAYLOR-STILES CUTTER

This Taylor Stiles Cutter is used by most manufacturers of precision flock, because it has the mechanical features they require to produce flock to ½ mm or 1 mm without "grandfathers". Naturally manufacturers do not divulge details of their processes which depend on the material used, its pretreatment and the method of feeding to the cutter.

So we can only ask you to examine this machine which has the inherent accuracy to produce precision flock.

Write for description of Taylor-Stiles cutter for your specific requirements.

TAYLOR-STILES and Company
CUTTING MACHINES & KNIVES

15 Bridge Street Riegelsville, N. J.

50% greater horsepower with the same width or equal horsepower with ⅛ less sheave width.

Design features of the Poly-V Drive reduce face pressure one half, giving longer life to belt and sheaves. Also, the full drive width and the total traction surface contact prevents belt turnover and progressive sinking in sheave grooves.

One of the most important features of the new drive is that it eliminates belt matching problems. Also, it affords a marked economy in belt and sheave inventories. Poly-V is available in two cross-sections; #187 and #375.

Manhattan Rubber Div., Raybestos-Manhattan, Inc., Passaic, N. J.

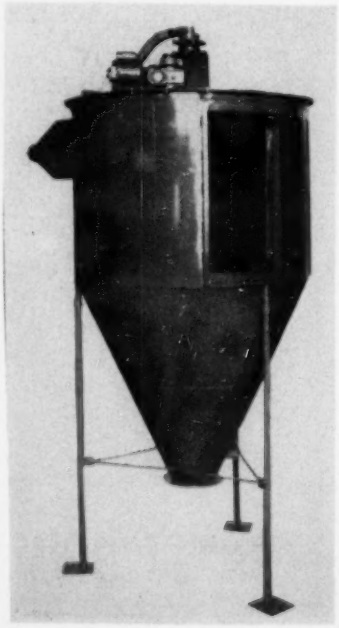
For additional data, request item H-725, using Handy Return Card on page 169.

Dust Collector Features Rotary Arm Cleaning

A highly efficient dust collector, the Model R Aeroturn, is designed on a new rotary arm cleaning principle, and incorporates the principles of the reverse-air-jet filtering.

Because of its cylindrical housing and continuous cleaning action, the device can handle extra heavy dust loads without overloading. This design feature now makes economically possible dust collecting in pneumatic conveying systems operating under high pressure-vacuum conditions.

Model R Aeroturn (Turner & Haws).



The dust enters the collector housing outside of the filter medium. Dust and dirt are filtered out of the air as it passes from the outside to the inside of the cylindrical filter. Since the filter medium is supported by a perforated metal cylindrical cage, virtually all strength requirements of the filter medium are eliminated. This construction feature allows many other types of material to be used as filter media, thereby extending the life of the filters and improving the service factor.

The cleaning of the filter medium is accomplished by a continuously rotating vertical blow tube. This tube passes between the supporting metal cage and the filter medium. High pressure air is forced through a narrow vertical slot running the whole height of the blow tube. The accumulated dust and dirt on the outside of the filter is thereby loosened by the reverse air jet. This dust is blown into a receiver tube which rotates outside the filter medium and in synchronization with and opposite to the blow tube. The dislodged dust, blown into the hollow, rectangular receiver tube falls down through this tube into a hopper for continuous or intermittent removal.

The Model R achieves its operating economy and dependability through utilizing one simple rotating assembly within the filter housing. One electric motor drives both the rotating blow tube assembly and the positive displacement blower, used to supply the reverse-jet cleaning air.

Normal operating capacities for the Model R Aeroturn run from 300 CFM to 10,000 CFM.

Turner & Haws Engineering Co., Inc., 87 Gardner St., Boston, Mass.

For additional data, request item H-215, using Handy Return Card on page 169.

Heavy Duty Doubler Twister

The U. S. Acme Heavy Duty Doubler Twister is designed for low-twist and/or combining of high denier glass and/or synthetic yarns. This new doubler twister is equipped with roller bearing spindles, ball bearing idlers, stationary ring holders, and has a 9" traverse. Each spindle is individually controlled with a stop motion.

Its over-end creel can accommodate pirns, cakes, cones, and bobbins to

meet specific mill requirements. The builder motion unit builds straight or bottle type packages. An extremely simple twist gear arrangement provides for right or left hand twisting simply by moving swing mounted gears to position for the desired twist.

U. S. Textile Machine Co., Scranton 8, Pa.

For additional data, request item H-726, using Handy Return Card on page 169.

Lab-Size Barotor Saves Material, Time, Labor

The Wiesner-Rapp Lab-Size Barotor has all the basic features of the large production model Barotor, the machine developed by Du Pont for pressure-dyeing fabrics. It is functionally designed for use in test dyeing to accurately predetermine large scale production results and also for laboratory use in dye and process development.

The machine can be installed in the laboratory or at a convenient place in the dyehouse for on-the-spot research.

Test dyeing results determined in this unit can be duplicated in the production model Barotor, thereby eliminating costly experimentation on a production basis and offering worthwhile savings in manhours, production time, and material—plus greater uniformity of product.

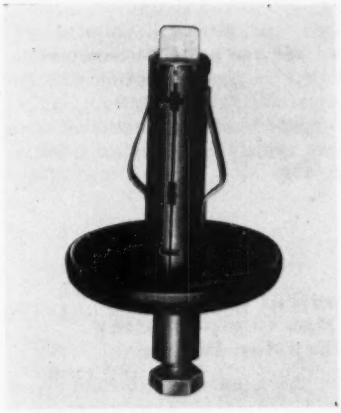
An outstanding feature of the lab-size unit is the quick-opening door which simplifies as well as speeds opening and closing.

The Wiesner-Rapp Co., Inc., 1600 Seneca St., Buffalo 10, N. Y.

For additional data, request item H-727, using Handy Return Card on page 169.

Bobbin Holder Needs No Brake to Adjust Torque to Package Size

A bobbin holder whose turning torque varies in proportion to the size of the package is now available. When the package is full and heaviest, turning friction of the bobbin holder is at its easiest to permit free motion; turning friction increases automatically, without the use of a brake, as yarn is stripped from the package and reaches its maximum when the package is almost empty and lightest. This change of turning friction, along with the change in weight of the yarn package, assures a constant turning force which eliminates both over-run and drag.



Bobbin holder by Dixon Corp.

The bobbin holder needs no brakes to adjust amount of torque to diminishing size of package without allowing overrun. Rulon, an oil-free bearing material, is utilized; hence the bobbin holder does not leak oil and grease and cannot damage the yarn with spots. All working parts are completely enclosed in the bobbin and therefore cannot collect lint.

Parts of the bobbin holder are few in number, and require little or no attention from the operator. It will accept all the commonly used bobbins without the need of purchasing extra parts for varying bobbin sizes. The holder can be adjusted by hand without tools of any kind.

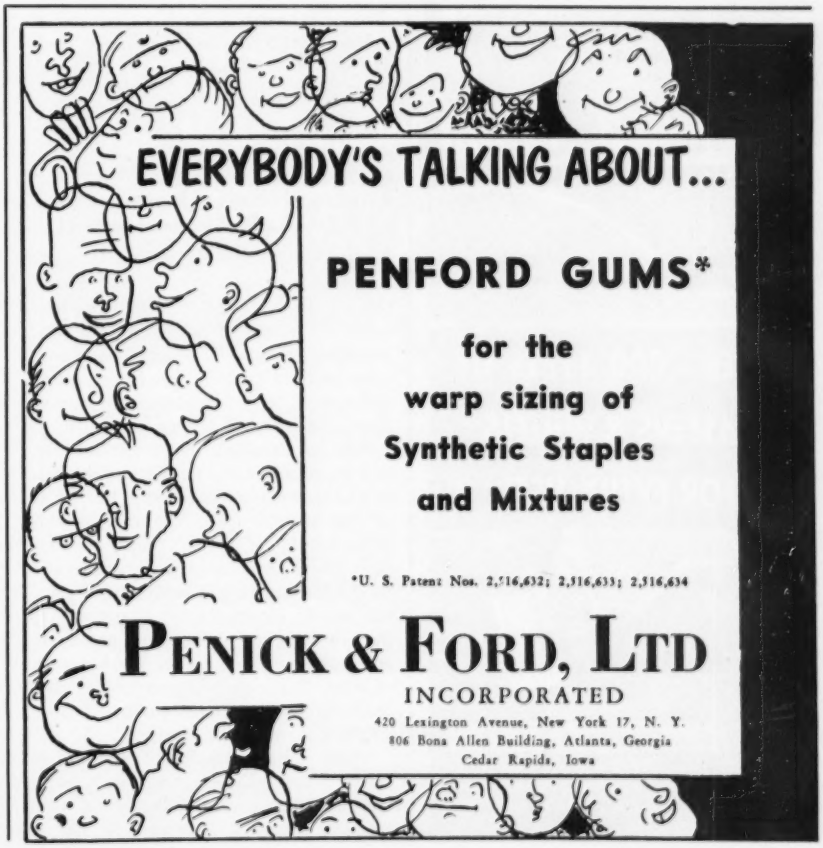
A free sample is available on request for testing.

Dixon Corporation, Bristol, R. I.

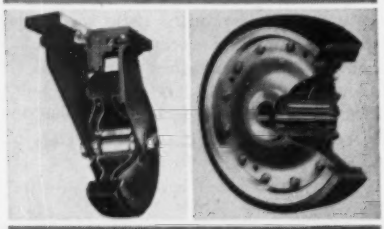
For additional data, request item H-217, using Handy Return Card on page 169.

Combination Micro-Set Pneumatic Pad

A new combination micro-set pneumatic pad for use in dyeing or finishing of fabrics eliminates the hand wheel for applying pressure to the rolls. Load is applied through a pneu-



THE RIGHT CASTERS AND WHEELS FOR TEXTILE MILLS



DARNELL
CASTERS & WHEELS

Darnell Engineers have given special study to Caster and Wheel usage in Textile Mills - have developed many models of casters and wheels to meet the demands of efficient, economical intra-plant movement of materials. It will pay you to consult a Darnell distributor when considering casters and wheels, either for new equipment or replacement.

OVER 4000 TYPES OF CASTERS & WHEELS FOR EVERY USE!

FREE MANUAL

DARNELL CORPORATION, LTD.
DOWNEY (LOS ANGELES COUNTY) CALIFORNIA
60 WALKER STREET, NEW YORK 13, NEW YORK
36 NORTH CLINTON STREET, CHICAGO 6, ILLINOIS

matic cylinder arrangement.

Two- and three-roll units are offered, the pad being interchangeable.

Van Vlaanderen Machine Co., 370 Straight St., Paterson 3, N. J.

For additional data, request item H-208, using Handy Return Card on page 169.

Vertical Redraw Has Compensating Tension Device

On the Leesona #810 high speed vertical redraw for redrawing from a producer's package (pirn) to a tapered top twister bobbin, yarn tension is controlled by a simple and efficient device that compensates for the difference in tension on the yarn as it winds onto the nose of the bobbin, preventing yarn sloughing off in handling and at other processes.

Speeds of 700 to 1000 yards per minute are practical with this machine which produces 2-pound packages. Yarn cleaner and emulsion attachments are available.

The standard machine is built with 100 spindles, 7" spacing, 33' 6" overall, 26" wide.

Universal Winding Co., P. O. Box 1605, Providence, R. I.

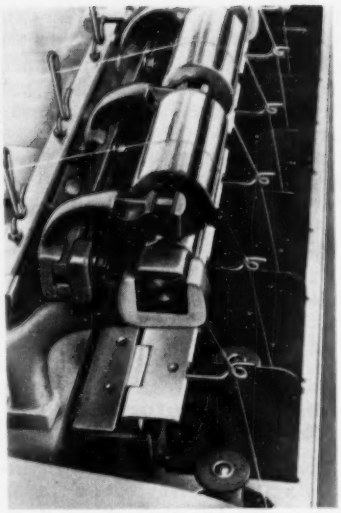
For additional data, request item H-209, using Handy Return Card on page 169.

Cotton Twister Features New Roll Arrangement

Newest addition to the Whitin series of ring twisters for cotton and other fibers is the Whitin "Pacemaker" twister or Model P, an outstanding feature of which is the roll arrangement which provides more uniform yarn tension, improved yarn quality, and longer guide life.

The location of the front bottom roll in relationship to the center line of the spindle is such that the path of the thread from the roll to the thread guide is in an almost vertical line. The height from the roller beam to the bottom roll is sufficient to permit ample clearance for the operator in threading. Machine can be equipped with single or double line of rolls. Top rolls are supported with individual fingers, insuring better alignment with the bottom roll.

Other construction features of this twister are: Large range of yarn twists; lower noise level; ring rail support bracket traverse is on a stationary rod placed in back of the spindle rail; ring rails are counterbalanced with coil spring mechanism which results in a smoother traverse and lower maintenance of builder and other lifting parts; full length stationary separators mounted on spindle rail eliminate end breakages at adjoining positions; motor is mounted on a swing base under foot end of machine, conserving floor space; either plain or anti-friction spindles can be furnished.



Roll arrangement of Whitin "Pacemaker" twister for cotton.

Whitin Machine Works, Whitinsville, Mass.

For additional data, request item H-728, using Handy Return Card on page 169.

Roll Dryer Provides 40-100% More Production

Through close control of heat, air circulation, and tension of cloth, the new "National" HR-4 roll dryer provides 40% to 100% higher drying speeds, uniformity of drying on both faces of the cloth, and quality and hand of the dried product. It is possible to control shrinkage to the point where either thick or thin hand can be produced while minimizing or eliminating break or pinch marks and/or shading.

This roll dryer will prove equally efficient and economical for any of the following purposes: (1) as a pre-dryer in front of a tenter frame; (2) as a pre-dryer in front of a loop dryer; (3) as a complete dryer for certain types of pad dyeing or finishing work, particularly where controlled

tension is desirable. Modifications of the machine are available for resin curing.

Designed for easy accessibility, whether located on the floor or suspended above it, the dryer is simple to clean and maintenance costs are exceptionally low.

"P-4" truss type construction is utilized in this machine, offering these advantages to the customer: longer service life, smoother operation, and reduction of installation time as much as 50%.

High drying speed results from a combination of adjustable fan power and a unique air distribution system, controlled to assure equal volume of air to every pass. Controllable air jets are located in each pass and are adjustable horizontally and vertically in relation to each other and to the fabric.

Cloth may be conveyed through the machine either relaxed or under a wide range of tension by means of a newly developed hydraulic drive system.

All-stainless-steel rollers are designed to expand lengthwise as they turn, keeping the cloth smoothed out without tension to eliminate doubling-up or scrimping.

The dryer may be designed for steam, gas, or other fuels.

Also available is a smaller version of this unit designed to meet lower production requirements. Called the Model XA-2 "Unistack" dryer, it conveys the cloth in straight line arrangement at exceptionally high speed.

The National Drying Machinery Co., Lehigh Ave. and Hancock St., Philadelphia 32, Pa.

For additional data, request item H-203, using Handy Return Card on page 169.

Roving Bobbin Stripper

For removing cotton, synthetic, or wool roving waste from fly frame bobbins, the Type M roving bobbin cleaner is available.

Full boxes of uncleaned bobbins are dumped into a large hopper at the machine feeding level by the bobbin box hoist. Bobbins are manually placed on the feed table, and at a low cycle speed of 20 strokes per minute the machine cleans 60 bobbins per minute—3 at each stroke.

Jaws hold the waste while bobbins are pushed through them. Waste is deposited in a container, and bobbins ejected into a roving box.

The machine can be fitted with a blower so the inside of the bobbin may be cleaned while the waste is being removed.

The Terrell Machine Co., Inc., Charlotte, N. C.

For additional data, request item H-204, using Handy Return Card on page 169.

Squeeze Roll Control Indicates Pressure, Easily Adjusted

The Taylor squeeze roll pressure control for slasher size boxes, calender rolls, dye padder rolls, and other high pressure applications offers the advantages of easy adjustment and immediate indication of roll pressure. One unit is installed on each end of the roll.

The unit for slashers can apply up to 1000 pounds pressure for a total of 2000 pounds pressure on a roll plus the weight of the roll. It prevents soft spots and gives uniform penetration of the size.

The unit measures and controls actual pounds of force applied directly to the roll, unaffected by friction or leaking air. Spring automatically raises roll when supply pressure is shut off.

Taylor Instrument Companies, Rochester 1, N. Y.

For additional data, request item H-205, using Handy Return Card on page 169.

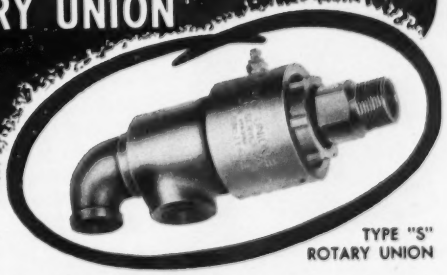
"Nitrated" Rings More Resistant to Wear and Corrosion

Exceptionally high resistance to wear and freedom from corrosion are principal advantages to be derived from "nitrated" rings now on the market for spinning frames and twisters.

In the manufacture of these rings, a special alloy which has been hardened by a process known as "nitrating" is utilized. Surface hardness of 68° to 70° Rockwell is obtained.

Surface is polished to a mirror-like

Here It Is!
The New ROTARY UNION*
That Permits
Field Repair



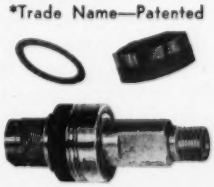
TYPE "S"
ROTARY UNION

We couldn't improve the operation of the ROTARY UNION so we redesigned it so that you can now repair worn units in your own shop. This new design also permits quick and easy conversion of present models to field repair units, using the simple conversion unit shown below.

The ROTARY UNION produces a positive mechanical seal without the use of packings of any kind. It is self-aligning to stress and self-adjusting to pressure, thereby preventing wear on moving and sealing parts and assuring extra long service. It requires no adjustment or maintenance and can be installed in a few minutes.

No revolving joint outlasts or outperforms the ROTARY UNION. Specify ROTARY UNION on all revolving equipment used for heating, cooling, or drying purposes. Write Dept. 8T for catalog, or contact our nearest office.

*Trade Name—Patented



"Where Good Connections Count"®

PERFECTING SERVICE CO.
332 Atando Ave. Charlotte, N.C.
(Home Office & Factory)

Chicago
Cleveland
Providence
New York
Montreal
Toronto

finish so that the ring can be used with highest traveler speeds without any noticeable delay for running in. Correct and accurate profile makes it possible for travelers to operate in the most suitable position.

Texplant Corp., 65 Bedford St., Stamford, Conn.

For additional data, request item H-206, using Handy Return Card on page 169.

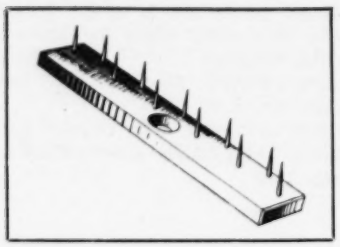
Recessed Spur New Feature of Draper Shuttles

Draper shuttles for cottons, synthetics, etc., are now available with recessed shuttle spurs, furnished as specified—sharp, blunt, or semi-blunt, large diameter or small diameter head, with or without fiber washer.

Shank of the spur is serrated, and the spur fits over as expanded ferrule.

Draper Corp., Hopedale, Mass.

For additional data, request item H-729, using Handy Return Card on page 169.



Teflon Coated Tenter Plates

Tenter plates coated with Du Pont Teflon are now available for all makes of machines.

The plates are made from brass with plain steel, stainless steel, and K-monel pins, according to the customer's specifications.

Southern Textile Works, 202 South Towers St., Anderson, S. C.

For additional data, request item H-602, using Handy Return Card on page 169.

Improved Hand Knotter

The Abington automatic hand knotter, which ties a weaver's knot in a wide range of sizes and varieties of natural and synthetic yarns, is now built on a new cast steel frame to make it even more rugged, durable, and trouble-free.

Knots are always uniform as to size; tails any length desired; tails clipped absolutely even; smallest knots obtainable; 50% saving of actual tying time over hand work; considerable gain in winding production.

Abington Textile Machinery Works, North Abington, Mass.

For additional data, request item H-730, using Handy Return Card on page 169.

New Safety Feature on Wet Processing Machines

All Birch Bros. mangles, squeezes, and padders can now be supplied with photoelectric safeguards so that the rolls open when any object, such as an operator's hand, intercepts the beam of light focused across the machine just in front of the rolls.

Birch Brothers, Inc., 32 Kent St. Somerville 43, Mass.

For additional data, request item H-731, using Handy Return Card on page 169.

From a pound to a CARLOAD . . .

- SCOURING AGENTS
- DYEING ASSISTANTS
- WEIGHTING AGENTS
- TRICOT FINISH

Hans C. Bick, INC.
MANUFACTURING CHEMISTS
Reading, Penna.

The improved processing that results from Bick textile chemicals is yours in a hurry whether you need a pound or a carload. Furthermore, unique production flexibility enables Bick to meet unusual demands. So order Bick chemicals for dependable deliveries. They're made by the manufacturing chemists who originated "Nylonized" Finish*—the miracle finish for new fabric beauty and softness. And they're applied for best results by a skilled field staff backed up by laboratory testing facilities.

* Reg. trademark of Hans C. Bick, Inc.

Yarn Imperfection Counter Eliminates Human Error

A precision instrument, eliminating human error, is now available to count yarn imperfections, such as neps. Called the Brush Imperfection Counter, it has the following features:

Accuracy—proved by exhaustive field tests during the last two years.

Versatility—by adjustment of a simple control, the machine will count the same number of imperfections as are counted by eye.

Operation—accurate imperfection count regardless of operator.

High speed—counts yarn imperfections while material is running at 100 yards per minute.

Automatic — timer automatically shuts off instrument when test has been completed.

Direct reading—the number of imperfections is read directly from a counter. No interpretations are necessary.

Calibration — positive electronic

calibration insures peak performance.

Range—counts imperfections in any size yarn.

Yarn handling—no changes or adjustments necessary. Permanently positioned yarn handling mechanism accepts any size yarn package and all yarn sizes.

Reliability—compact and rugged. Trouble-free operation.

Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, Ohio.

For additional data, request item H-732, using Handy Return Card on page 169.

84-Inch Woolen Card Offers Many Advantages

Following are some of the advantages to be derived from their use and features of the new Davis & Furber Model "L" three-cylinder 84-inch wool card, the Model "G" Bramwell feeder, and the Model "L-1" tape condenser:

The Card. Increases in production out of proportion to increase in carding surface.

Requires no increase in manpower from existing narrower width machines.

Use of anti-friction roller bearings throughout means much less lubrication down time.

Greater production and less fly insured by utilization of draft boards and fancy bonnets.

New clutch eliminating flat belt on center draw feed makes it possible to stop and start all elements of intermediate simultaneously.

More even entry of stock to intermediate feed rolls furnished by new feed compression apron replacing compression roll.

New Powdermatic Clutch on the individual motor drives on breaker and finisher sections eliminates all slip at operating speeds and reduces necessary current for starting requirements.

Streamlined in-line drive allows wider cards to conform to present floor plans. V-belts and silent chain drives have eliminated flat belts.

Feed. Variable speed spike apron facilitates control of stock flow.

New ball bearing, self aligning take-up units.

Improved clean-out facilities.

Redesigned sealed bearings on all rolls, reducing maintenance costs and cleaning down time.

Redesigned comb drive — speed synchronous with speed of spike apron. Eliminates drive shaft from card and all belts and pulleys.

Highly sensitive weighing mechanism for precision stock delivery.

Tape Condenser. Newly designed anti-friction eccentric with double eccentric hubs, graduated dials for positive adjustment of suitable length of stroke, and a new eccentric cross arm vibrating the apron rolls through anti-friction bearings. This new eccentric end gives a direct pull between center of apron rolls and eccentric, providing a quieter, more trouble-free operation.

Davis & Furber Machine Co., North Andover, Mass.

For additional data, request item H-733, using Handy Return Card on page 169.

Combination Tubing and Examining Form for Fabrics

For use in mills where cloth is shipped on tubes is a new combination tubing and examining frame which permits both operations to be done at the same time. It can be used as a straight examining frame (shell to shell) or combination machine (shell to tube).

Guides with which the frame is equipped insure perfect packages. Speed of fabric can be varied from 6 to 250 ypm as desired.

Van Vlaanderen Machine Co., 370 Straight St., Paterson 3, N. J.

For additional data, request item H-207, using Handy Return Card on page 169.

Bicoil Drawing Delivers Slivers Through Separate Trumpets

A new bicoil drawing frame delivery deposits two slivers into each can through separate trumpets, thereby keeping the slivers apart from each other in the can.

Separate guide plates are provided

'Mercury Clutch contributed to our Success!'

A Letter to MERCURY CLUTCH from CARLETON WOOLEN MILLS, Rochdale, Mass.

We want to advise you of the satisfactory results we have had from the use of the Mercury Clutches we have. A little over a year ago, the mill replaced all the carding and spinning machines then in service and replaced them with new Whitin 72" cards and Whitin 144 Spindle Frames. After several conferences and the combined knowledge of the Whitin Machine Works and with our own desires in a drive for these machines, we reached the decision to equip the new machines with Mercury Clutches. It was a happy decision for us as our year's experience has proven. We found that we did get a better power factor in electric loads which helped us in our rates. We are pleased too, with the smooth starting of the big 72" cards. No jumping and the need of men holding on to belts. As a result a card that has been set for close work, holds its set better. This is true also of spinning frames. The smooth acceleration of speed has been a real help in spinning.

Our high efficiency providing us with peak production from these machines has been assisted by your Mercury Clutches. And of course one of the features that we are most grateful for is the absence of mechanical troubles. We believe that this Mercury Clutch has contributed to our success this past year. We are happy to record this statement.

Carleton Woolen Mills, Inc.

FREE BULLETIN! Send for your free copy of the complete story about Mercury Clutches.

Mercury Clutch Division
AUTOMATIC STEEL PRODUCTS, INC.
CANTON 6, OHIO

for each sliver, leading them to the separate trumpets. The cans are in continual rotation, the direction of which is reversed after 180 degrees. In this way the two slivers are made to lie side-by-side in cycloidal coils without interfering with each other when being taken out of the can.

American Rieter Co., Inc., Arlington, N. J.

For additional data, request item H-734, using Handy Return Card on page 169.

Synthetic Fabrics Treated with Lanolin Feel Cooler in Summer, Warmer in Winter

"Lanolized," a process for treating textiles with pure lanolin, is now being utilized on several national brands of women's nylon stockings and will soon be applied to a number of intimate apparel items, according to reports.

Greater leg comfort is provided by the Lanolized finish. Stockings cling snugly to the contour of the leg and soothe tired soles of feet. Seams stay straight.

The Lanolized stocking feels like silk and is cooler in the summer and warmer in the winter. It has an attractive, smoke-dull appearance.

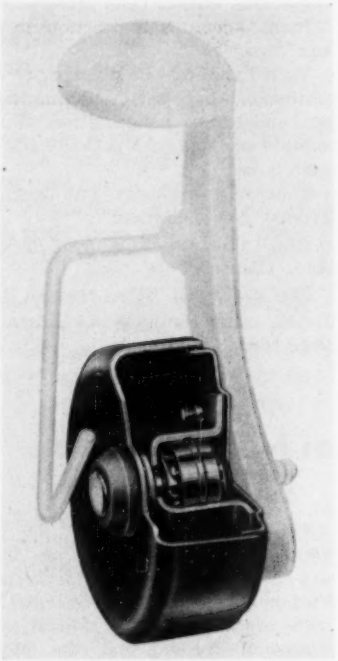
Lanolized, Inc., 350 Fifth Ave., New York, N. Y.

For additional data, request item H-735, using Handy Return Card on page 169.

Ball Bearing Tension Pulley Has Large Stationary Grease Chamber

A new double row, ball bearing tension pulley for spinning and twisting frames offers these advantages:

Large stationary grease chamber; simple regreasing only once every 20,000 working hours; inner ring rotation; tilt-proof ball bearing; protection from fly and other foreign matter; simple, durable, all steel construction with a machined crown; dynamically balanced; Parkerized shell; almost noiseless.



SKF ball bearing tension pulley for spinning frames.

Two screw fasteners assure a firm and permanent attachment of the SKF "SR" tension pulley to either metal stamped or cast iron brackets. Adapters are available for change-over from other makes. A standard grease fitting can be applied on all applications of this device.

SKF Industries, Inc., Front St. and Erie Ave., Philadelphia 32, Pa.

For additional data, request item H-119, using Handy Return Card on page 169.

Twister Attachment for Setting Twist in Yarns

Any existing uptwister on which there is enough room can now be equipped with an electric heating unit for setting twist and removing residual shrinkage of thermoplastic yarns while being wound onto packages for shipment or further processing.

Fletcher Works, Glenwood Ave., Philadelphia 40, Pa.

For additional data, request item H-736, using Handy Return Card on page 169.

NEW U.S. ACME Combo TWISTER

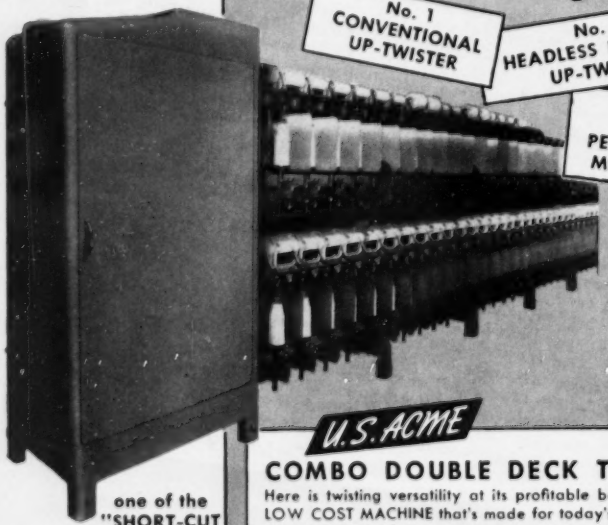
3 machines combined into 1

No. 1 CONVENTIONAL UP-TWISTER

No. 2 HEADLESS PACKAGE UP-TWISTER

No. 3 WITH PERMANENT MANDRELS

• NEW SHOCK PROOF TRAVERSE MOTION



one of the "SHORT-CUT METHOD" pair

Write or phone for complete information

U.S. ACME

COMBO DOUBLE DECK TWISTER

Here is twisting versatility at its profitable best in a new, LOW COST MACHINE that's made for today's competitive, changing market!

U. S. TEXTILE MACHINE CO.
SCRANTON 8, PENNA.

What the TEXTILE MILLS are doing

(Continued from page 52)

Arms Textile Manufacturing Co., is vice-president and treasurer. President is Louis Reiter of New York.

Seneca Knitting Mills, Seneca Falls, N. Y., have been purchased by four former employees: Edwin J. Sealy, in charge of sales; C. J. Mackle, plant manager; and Francis J. Souhan of Geb and Souhan Yarn Co. and his son George.

Approximately 41% of the common stock of **Robbins Mills, Inc.,** has been acquired by **J. P. Stevens & Co., Inc.** The organization is expected to continue as a separate operation.

Sujan Knitting Mills, Inc., recently chartered, will manufacture sweaters and other outerwear. Douglas Holt, 81 Jayson Ave., Great Neck, Long Island, is principal incorporator.

Synthro, Inc., was recently organized to operate a yarn throwing plant at Bath, Pa. President is Jerome Barney.

Dorothy Breen, 437 Fifth Ave., New York, is attorney and representative for the recently organized **U. S. Stencil Silk & Dacron Corp.,** operating a textile screen printing plant.

Wanskuck Co., Providence, R. I., has discontinued operations at its Mohegan Mill, Nasonville, R. I. Machinery and facilities have been removed to Providence.

A loss reported close to $500,000 was sustained because of fire in one of the warehouses at Empire Cotton Division, **Woods Manufacturing Co., Ltd.,** Welland, Ont.

Woodside Mills, Liberty, S. C., have well under way a modernization program at both their plants, with a one-story addition at Plant 2 and replacements of about 200 new looms and equipment at Plant 1.

SUPPLIERS News
WHAT THEY ARE DOING

George B. Monk has been made fiber sales and service representative of the National Aniline division, **Allied Chemical & Dye Corp.** He was previously with American Bemberg.

New director of market development for **American Alcolac Corp.** is Carl Pacifico, who was with Wyandotte Chemical Corp. before joining this firm.

American Cyanamid Co. has announced the establishment of an undergraduate scholarship program in chemistry and chemical engineering to supplement its existing post graduate fellowships and grants. Seventeen undergraduates about to enter their junior or senior year will be awarded $600 each for the academic year 1954-55.

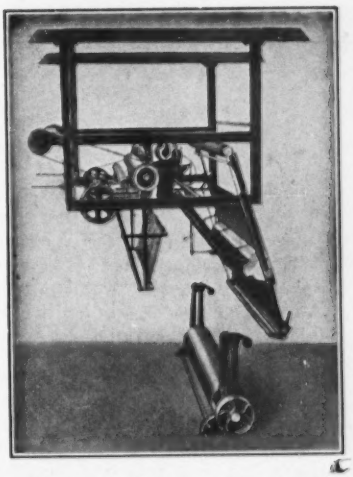
Among the 29 institutions included by **American Viscose Corp.** in its college relations program for 1954-55 are the Georgia Institute of Technology and Philadelphia Textile Institute. Fifteen fellowships and twenty-four scholarships have been established.** All commercial yarn manufacturing at the Marcus Hook plant has been permanently discontinued.

John DeQuattro recently joined the sales staff of the **Benjamin Booth Co.,**

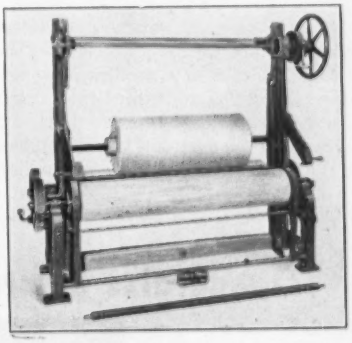
Mr. DeQuattro

as representative in the New England territory.

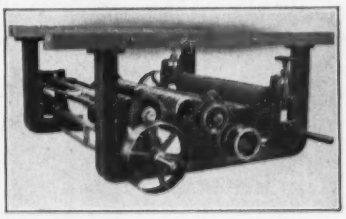
As a result of its first annual competition among textile school students for the Celanese Award for Fabric Creation, **Celanese Corp. of America** has awarded two grand prizes—



IMPROVED SIMPLIFIED CEILING TYPE POWER PERCH with forward, Reverse and Variable Speed, Positive Motor Drive, with Fluorescent Through Lighting Panel, Yardage Counter, Folder and Winding Machine. Selvedges may be easily matched. For finish or rough perching.



BIRCH TYPE SIMPSON WINDER now furnished with air operated cut-off knife and transfer.



NEW HEAVY DUTY BALL BEARING SCUTCHER with Rubber Draw Rolls; Shafts of increased size; Heavier Spirals; Gears—cut fibre and iron; Pulleys and Gears keyed; Brackets doweled. For all weights of cottons, rayons, and rayon blends, etc.

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Southern Representative:
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HAROLD W. BIRCH CLIFFORD W. BIRCH
CLIFFORD W. BIRCH, JR.

SUPPLIERS News
WHAT THEY ARE DOING

Boris Zighelboim, of the Philadelphia Textile Institute, and James W. Shuttleworth, Jr., in collaboration with Joan L. Gadbois of the New Bedford Textile Institute.** E. Waring Best, previously with Celanese Services, S. A., is now assistant general sales manager of the Textile Division of Celanese Corp.

Walter T. Coker has been made assistant district manager of the **Armstrong Cork Co.'s** Greenville, S. C., office. He joined the organization in 1935 and has been in Greenville since that time.

H. Brinton Co., Inc., has announced the appointment of John H. DeWitt as treasurer of the firm. He replaces Robert T. Smith.

N. C. Bremer, chief engineer of **Morse Chain Co.,** has announced the formation of a new application engineering division within the firm's engineering department. Earl E. Wesselhoff is assistant chief engineer in charge of development, production engineering, and the Detroit engineering laboratories.

Brush Electronics Co.'s southeastern textile instrument sales and service office in Greenville, S. C., has acquired four new station wagons to give immediate area customers 24-hour service on routine repairs. Loaner units are carried by the servicemen for customers whose instruments require major repairs. This new office is under the direction of D. M. Gaskill, supervisor, textile section.

Mr. Gaskill

Mount Hope Machinery Co. has established a handling equipment exhibit in its show room at Taunton, Mass., and has invited visitors to "bring your own fabrics or materials" for a running demonstration of the equipment in operation.

Harry E. New was recently appointed manager of the technical sales service division of **The Chemstrand Corp.** Before joining the firm in 1953, Mr. New was for fourteen years with American Viscose Corp.

Dewitt E. Phillips is now representative in the Georgia territory for **A. B. Carter, Inc.** He replaces J. Walton Brown, resigned.

Mr. Phillips

J. Wylly Keck, Jr., has established a consulting engineering firm at 3110 Roswell Rd., Atlanta, Ga., specializing in industrial power and processing, heating, ventilating, air conditioning,

standardize on standard

HALLOWELL®
SOLID STEEL COLLARS

now size-marked for easy identification

42 stock sizes—each marked with shaft diameter for easy identification—are now available at your HALLOWELL distributors'. And these precision machined solid steel collars—in sizes from 3/16" to 3" inclusive—have the famous self-locking UNBRAKO Socket Set Screw to assure positive positioning on the shaft.

Write for literature and the name of your nearest HALLOWELL distributor. STANDARD PRESSED STEEL Co., Jenkintown 34, Pa.

HALLOWELL POWER TRANSMISSION DIVISION

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IDENTIFICATION BANDS
for your
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IDENTIFICATION BANDS OF UNITED ELASTIC WEBBING FEATURE

- the most in service
- a very attractive price
- well-made, firmly-woven construction
- securely sewed laps
- any desired color
- bright, solid, even colors
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- easily recognized at a distance
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If you will specify the can diameter; and the color, width and quantity of bands desired; we will submit samples and quote prices.

UNITED ELASTIC CORPORATION
EASTHAMPTON, MASS.
Sales Agent:
Roy Schrimshire
P. O. Box 906, Columbus, Georgia

and plumbing fields. He was previously associated with W. D. Taulman & Associates, of Atlanta.

Harold V. Farnsworth, vice-president of **Atkinson, Haserick & Co.,** has been appointed a trustee of the Lowell Technological Institute.

George C. Cater recently joined **Roberts Company,** Sanford, N. C., as Field Service Engineer on the com-

Mr. Cater

pany's high-draft changeovers for spinning frames. Mr. Cater will make Anderson, S. C., his headquarters.

Charles L. Paine was recently elected president of **Courtaulds, Inc.,** and its subsidiary, **Courtaulds (Alabama) Inc.** He succeeds Colonel F. T. Davies, a director of the parent British Company.

B. F. Perkins & Son, Inc., has opened a southern sales division in Charlotte, N. C., with Benjamin C. Trotter as manager.

John F. O'Neil has joined the research staff of **Emkay Chemical Co.** He was formerly with Colloids Inc.

Jeff Young is now representing **W. F. Fancourt Co.** in the western part of the Carolinas.

J. J. Finnigan Co., Inc., has opened a sales office in Houston, Tex. Manager is Albert A. Sterling, Jr., with Edward K. Stephens as assistant.

Semon H. Stupakoff was recently elected vice-president of **The Carborundum Co.** He was previously president of Stupakoff Ceramic and Manufacturing Co.

W. C. Chisholm, president of **Foster Machine Co.,** has announced that the Model 66 automatic filling winder will be manufactured in Westfield, Mass., and not in Ashton-under-Lyne, England.

B. F. Goodrich Chemical Co. has made Orville E. Isenburg general manager, Harmon Colors. He will direct all operations of the firm's color business which serves various industries including textiles.

Bill Pearson and S. Y. Stribling, III, have joined the sales staff of the **Hilton-Davis Chemical Co.**

John C. Richards is now representing **William Iselin & Co., Inc.,** in North and South Carolina and Virginia. During the past four years he has been with the Bank of New York.

Kalman Floor Co. has opened an office at 133 Luckie St. N. W., Atlanta, Ga., to serve Georgia, Alabama, Florida, and eastern Tennessee. Harry A. Pfiffner is its representative.

W. H. T. Furry has succeeded Malcolm B. Hall as director of the training and educational division of the **Foxboro Co.**

Franz Muller Maschinenfabrik, M. Gladbach, Germany, has appointed Parrott & Ballentine, 510 South Carolina Bank Bldg., Greenville, S. C., as agent in the southern states for the company's "Tri"-Nappers. They are represented in the northern U.S.A. and Canada by Textile Machinery Import Co., Inc., 277 North Ave., New Rochelle, N. Y.

Ellwood M. Eddington has joined the textile service department of **Dow Corning Corp.** He was formerly

Mr. Eddington

plant manager of the Old Fort (N. C.) Finishing Plant of United Merchants & Manufacturers Inc.

An advertising-promotion department has been established by **National Vulcanized Fibre Co.,** as part of its long-range expansion program. Heading the new department is William H. Brown.

Boston College recently awarded the honorary degree of Doctor of Laws to Thomas A. Printon, president and board chairman of **Nopco Chemical Co.** He was graduated from the college in 1917.

Dr. Emery I. Valko, previously project leader with the Polytechnic

H·D

AT YOUR SERVICE

SPECIALIZED ENGINEERING

SPECIALIZED EXPERIENCE

SPECIALIZED MACHINERY FOR TWISTING BUNCHING STRANDING FORMING AND LAYING IN THE TEXTILE • WIRE CORDAGE AND MANY OTHER INDUSTRIES

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HASKELL-DAWES MACHINE CO., INC.

2231 E. ONTARIO ST.
PHILADELPHIA 34
PA.

SUPPLIERS News
WHAT THEY ARE DOING

Institute of Brooklyn, is now director of research at **Onyx Oil & Chemical Co.**

Permacel Tape Corp. has made John S. De Noia assistant industrial sales manager. He has been with the firm in a sales capacity since 1940.

John A Stringer, controller of **Horace T. Potts Co.,** has been elected a national director of the System and Procedures Association of America.

John W. Reinhardt, former advertising manager of **Proctor & Schwartz, Inc.,** has resigned to accept a post as director of promotion for the National Council of the Episcopal Church.

Reynolds Metals Co. has established a new sales division for handling of its slit aluminum yarn for the textile industry. Robert F. Lewis has been named manager of the market division, with headquarters in Richmond, Va.

The merger of two factoring concerns — Crompton-Richmond Co., Inc., of New York and Joel Hurt & Co. of Atlanta, Ga. — has been announced. The new organization will be **Crompton-Richmond-Joel Hurt Co.,** with Mr. Hurt as president. The enlarged corporation will have capital and facilities to service the entire South, Mr. Hurt said. Other officers

Mr. Murphy **Mr. Hurt**

of the merged corporation, in addition to Mr. Hurt, who is also treasurer and a director, are W. W. Murphy, vice-president; Peter Richmond, vice-president and director; Louis Wells, vice-president and director; William A. McClain, secretary and director; Nightingale Richmond, director; and Frank H. Maier, director. Mr. Hurt and Mr. Murphy will continue as operating officers with headquarters in the Glenn Building in Atlanta.

C. J. Schmidt, in charge of the Detroit office of **J. O. Ross Engineering Corp.,** has been made vice-president in charge of sales, and has moved to company headquarters in New York. The department devoted to high-pressure hot water for industrial heating has been enlarged, and Erwin G. Hansen has joined the organization as a sales engineer. The company's Los Angeles branch office has moved to the new Ross plant at 6417 Bandini Blvd.

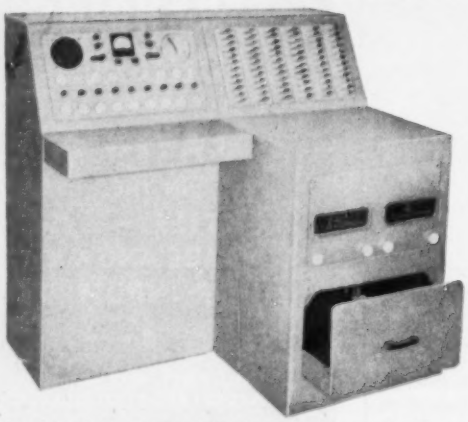
William C. Prettyman has joined the sales application engineering staff of the **Reliance Electric and Engineering Co.** in New York City.

Ralph Gossett and Co., Greenville, S. C., have been appointed southern representatives for **Trumeter Co.** The firm will cover the southern textile states for Trumeter.

Treesdale Laboratories and Textile Processing Co. has appointed Cletus W. Snider of Cornwall, Ontario, as assistant to the president. He was previously with Canadian Cottons, Ltd.

L. N. Huffstetler of Gastonia, N. C., has been made southern representa-

SOUND SYSTEMS FOR INDUSTRY BY BOGEN



As the science of automation is employed more and more by textile mills, proper communication between departments becomes increasingly important. The Bogen Sound System permits simultaneous intercommunication between key personnel in all areas of the mill. Let us show you the advantages today.

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KENTEX TEXTILE APRONS

Precision-built, of genuine leather, they "Fit Better—Wear Longer." Write for free samples and prices.

KENTEX APRON

TEXTILE APRON CO., East Point, Ga.

HUGH WILLIAMS & COMPANY, TORONTO, CANADA—CANADIAN REPRESENTATIVE

tive for **Textile Banking Co.** He was in the banking business in Gastonia for eleven years before joining Crompton-Richmond, factors of New York. With the new organization, Mr. Huffstetler will continue to travel the South.

U. S. Bobbin & Shuttle Co., Lawrence, Mass., and Greenville, S. C., has been appointed sole selling agent for Pakkawood picker sticks and other loom accessories manufactured by the Adams Plastics Co., Inc., Holyoke, Mass.

New York and New Jersey Lubricant Co. has appointed Richard K.

Mr. Burchett

Burchett sales representative in the Pittsburgh and Western Pennsylvania area.

Alex McCance has joined the **Morris Speizman Co., Inc.,** as sales director in charge of the territory north of the Mason-Dixon Line, including Canada. He was previously with Nolde & Horst, and before that with Phoenix Hosiery Co.

W. H. Miller has been made director of sales of **Sonoco Products Co.,** Hartsville, S. C. For the past

Mr. Miller

year Mr. Miller has been general manager of the firm's Mexican subsidiary, Sonoco de Mexico.

The fiber division of **Virginia-Carolina Chemical Corp.** has moved to larger quarters at 99 Park Ave., New York City. Executive, sales, retail promotion, and fabric development departments will be located here.

Joining the **Wiesner-Rapp Co.,** Buffalo, N. Y., in a sales engineering

Mr. Ames

capacity is Forrest C. Ames. His territory will extend throughout the U. S. and Canada.

White Bearings Co., 117 East 9th Street, Charlotte, N. C., was recently organized to handle complete specialized ball and roller bearing service. It has been appointed distributor for Fafnir, SKF, and Timken bearings, and National Oil seals. Robert L. White and Carolyn Hood Crawford, formerly with Moffatt Bearings Co., head the new company.

R. W. Moister is now resident sales representative in the central district office of the Michigan Alkali division

SUPPLIERS News
WHAT THEY ARE DOING

of **Wyandotte Chemicals Corp.** Residing in Atlanta, Ga., Mr. Moister

Mr. Moister

will handle the firm's sales in North and South Carolina, Georgia, Florida, Alabama, Mississippi, and Tennessee . . . Lewis M. Ludlow has joined the company as field representative of the Pacific district office, M. A. division. His territory includes Utah, Idaho, Montana, Washington, and Oregon, as well as northern California and British Columbia.

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection metal shields afford . . . Watch your spinning room efficiency increase!

TEXTILE SHIELD CO., INC.

Metal Protection for Wood Turnings

J. N. ANDERSON, *Treas.*

LAWRENCE, MASS., U.S.A.

SUPPLIERS News
WHAT THEY ARE DOING

Standard Chemical Products, Inc., has appointed Lewis C. Greene to represent the firm in parts of North and South Carolina and Georgia,

Mr. Greene

with headquarters in Greenville, N. C. He was formerly with North Carolina Finishing Co.

Hatcher Sales Co., Inc., has been made agent of the Magic Door division of **The Stanley Works** for North

Mr. Cobb **Mr. Hatcher**

and South Carolina and Georgia. Frank M. Hatcher and J. T. Cobb, partners in the firm, make their headquarters at 542 Forrest Road N. E., Atlanta, Ga.

The Standard Card Clothing Co. has completed arrangements with J. W. Davis, manufacturers' agent of Columbus, Ga., to handle their products. Mr. Davis personally contacts mills in Alabama, Georgia, Tennessee, portions of Louisiana and Mississippi, and has representation in Arkansas, Oklahoma and Texas.

News IN BRIEF

(Continued from page 73)

thing in Italian full-fashioned hosiery is a stocking with a seamed hole for the big toe.

Indian Association Branch. The Textile Association of India now has a Mysore Branch which was inaugurated by the minister for home and industries of the government of Mysore on November 8, 1953. The organization is expected to further the knowledge of the industry by discussions, personal contacts, lectures, etc. The association should serve the needs of the Cottage and Handloom industry as well as the mill industry, an announcement stated.

More Cotton Mills for Texas? Texas as a potential cotton manufacturing center is examined in "Cotton Textiles—An Opportunity in Texas," a 145-page book compiled and published by the Cotton Economic Research division of the University of Texas at Austin. The book concludes that opportunities for locating cotton textile mills in Texas are more favorable now than at any other time in the state's industrial progress, based on factors of markets, labor, water, cotton resources, climate, waste disposal outlets, taxes, fuel and power, and others.

Reduce In-Transit Cotton Fires. A permanent working group charged with developing ways and means to combat the problems of in-transit cotton fires and in-transit contamination of cotton was organized at a meeting of representatives of the National Cotton Council and the Association of American Railroads held in Memphis recently. Ways recommended to reduce fires and contamination are: use of railroad-approved loading diagrams for standard density bales; minimize loading of mis-shaped bales; careful handling of cars hauling cotton; and furnishing by the railroads of good, clean equipment for cotton shipments.

Starting Salaries for Textile Graduates Up. Average monthly starting salary for this year's graduates at Lowell Technological Institute is $368 per month, up 13 per cent over last year, the school announces. Only 23 per cent of the class are available to industry; 20 per cent will receive ROTC commissions, 36 per cent are eligible for the draft, 18 per cent are going on to graduate school, and 3 per cent are foreign students.

Power Show Moves to Philadelphia. The 21st National Exposition of Power and Mechanical Engi-

Industrial Engineers
SPECIALIZING IN TEXTILES For OVER ONE-THIRD OF A CENTURY
COST SYSTEMS
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HOTEL Duane
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Almost everything of importance is next door when you stop at the modern, friendly Hotel Duane. Only four short blocks from Empire State Building and Grand Central Terminal. A few minutes from Penn Station, Radio City, Times Square and UN. . . Handsomely furnished rooms (some with serving pantries) from $6 single and $9 double. A perfect location for textile executives—and the family, too.
Write for a descriptive booklet
MADISON AVENUE at 37TH STREET OFF 5TH AVE.

News in Brief

neering will be held at the Commercial Museum in Philadelphia, December 2 to 7, 1954. The show has been transferred to Philadelphia because the Grand Central Palace in New York, where the show was held in previous years, is now rented to the government.

No Cotton Export Subsidy This Year. Secretary of Agriculture Benson has announced that there will be no export subsidies authorized on cotton for the 1954-55 marketing season which begins on August 1. "Today, with foreign cotton substantially in line price-wise with our own cotton, there would appear to be every reason to continue during the 1954-55 season the same export policy we adopted last year, and we propose to do so," said Secretary Benson in making his announcement.

New Hosiery Colors. Six new hosiery colors for fall and winter, 1954, have been announced by the Textile Color Card Association. They are Bisque Beige, Roselaque (medium bluish-tinted beige), Sky-taupe, Tropic Honey, Brownglaze, and Bronze Sun.

World Fiber Consumption. World consumption of cotton, wool, and rayon averaged 8.8 pounds per person in 1952, down 0.2 pounds from the 1951 figure. During 1952 United States consumption of these fibers averaged 37.2 pounds per capita, as compared to 43.1 pounds in 1951.—*Textile Organon,* quoting Food and Agricultural Organization of the United Nations.

Watchdog Committee Formed by ISTDA. Chief function of a new technical committee formed by the Institutional Service and Textile Distributors Association will be to check and test merchandise sold by members of the group, to see that minimum standards are maintained. Committee will also help to develop new products and will handle certain phases of member-supplier relations.

Quotes of the Month . . . .

"The [textile-apparel] industry has channeled most of its creative thinking and effort into an exaggerated preoccupation with the battle of the fibers . . . . There is a crying need for digging deeply into consumer motivation . . . . to unearth facts which can provide the basis for new apparel markets."—Henry Bach, president of Henry Bach Associates, Inc.

"In general, the high level of [European] textile activity and reduced availability of foreign cotton indicate the total demand for United States cotton in Europe next year will be considerably higher than this year."—Read P. Dunn, director of foreign trade for the National Cotton Council.

"The outlook for the remainder of this year in the textile-apparel trade is more favorable than for the year to date."—A. W. Zelomek, president of the International Statistical Bureau, Inc.

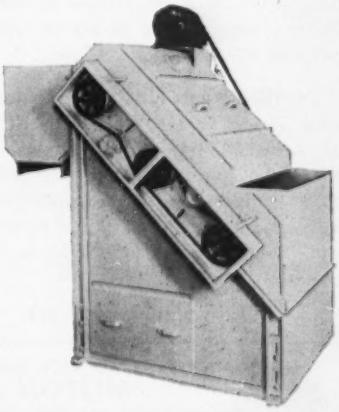
"We [the textile and garment industries] do not have enough research because we don't want someone outside our organization to tell us what is wrong with it. We are afraid to bring in engineering firms because we fear what they will find . . . . Research does not fear obsolescence. Research causes obsolescence. Not all change is for the better, but there is no betterment without change."—Hugh M. Comer, chairman of the board, Avondale Mills.

Skilled Labor Force Study Available. "The Skilled Labor Force," a 52-page booklet compiled by the Bureau of Apprenticeship of the U. S. Department of Labor, is a study of census data on the craftsman population of the United States from 1870 to 1950. Examples of facts brought out: there were 12,900 loom fixers in the United States in 1910; 31,000 in 1950. Loom fixers make up 0.38 per cent of the skilled labor force, median years of schooling are 8.7, median age is 41. South Carolina has more loom fixers (6595) than any other state. Booklet is available from the Superintendent of Documents, U. S. Government Printing Office,

CLEAN!

Webster defines the word "clean" thus: "Free from whatever sullies or defiles; pure; unsoiled." In other words, like the plates of your relatives who visit you or better still like cotton processed by a CENTRIF-AIR SUPERIOR PREOPENER.

Mill tests have proved an increase of up to 75% in cleaning efficiency can be effected by the SUPERIOR PREOPENER. Write for details today.



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MACHINE COMPANY, INC.
880 ASHBY ST., N.W.
ATLANTA, GEORGIA

News in Brief

Washington 25, D. C. Price: 45 cents.

Wool Support Prices. Representative loan rates for shorn and pulled wool for the 1954 marketing year have been announced by the Department of Agriculture. Rates are based on the national average support price of 53.2 cents per pound of wool, grease basis. Boston loan rate runs from $1.11 to $1.64 per pound, clean basis. Nonrecourse and advance loans will be available on shorn and pulled wool through March 31, 1955. Nonrecourse loans will mature on April 30, 1955. Advance loans will be on a recourse basis and will mature in 6 months from the date of disbursement or on March 31, 1955, whichever is earlier.

To Market Dacron Felt. Dacron felt for industrial purposes will be marketed this fall by Western Felt Co. of Chicago. The felt is said to be especially applicable for use in high temperatures or where exposure to acids or alkalis is met. Price is expected to be above comparable wool felts.

Textile Waste Institute Organized. The Textile Waste Institute of America has been granted a charter of incorporation, and will have offices in Atlanta. Lewis Gordon, formerly of The Citizens and Southern National Bank, is executive vice-president.

Direct Spinning System for Rayon. The Toho direct spinning frame, developed by the Toho Rayon Co. of Japan, was described at the International Congress of Man-Made Textiles held recently in Paris. The frame, known as the Toho C-D, is composed of a tow breaking section and a double-zone

drafting section. Counts from 40s to 120s are spun on the machine at Toho, with a claimed tensile strength 1.8 to 2 times that of yarn spun by conventional methods. The yarns have lower elongation and greater wet shrinkage than regular yarns. (These latter factors have restricted the use of tow-breaking direct spinning frames in the United States.—Ed.)

Chairman of New ASA Textile Committee. The National Retail Dry Goods Association has designated Irwin D. Wolf, vice-president and general manager of Kaufmann Department Stores, Pittsburgh, Pa., as chairman of American Standards Association Committee L25 on "All Textiles." The committee, of which NRDGA is sponsor, will develop specifications and test methods for end use performance requirements for all textile fabrics made from natural and synthetic fibers used in apparel and home furnishings.

Textile Scholarships. The Textile Education Foundation, Atlanta, Ga., has awarded textile engineering scholarships to Georgia Institute of Technology to five outstanding graduates of Georgia high schools: W. J. Garrett, J. C. Penick, A. C. Rogers, Jr., J. R. Sailors, and B. J. Taylor. Each award amounts to $300 per quarter while the student is in school and maintains the required scholastic and personal conduct requirements.

Flax Facts from Behind the Iron Curtain. Hungary's first fully mechanized flax factory recently went into production. The plant's boilers are fired with waste from the manufacturing process, and the seeds are recovered for planting the next crop. Whether flax is a Soviet invention had not been definitely determined at this writing.

Broadened Geographic Scope of Wool Promotion. A survey to determine the possibility of enlisting more wool-producing countries in the worldwide wool promotion program was voted at an international wool conference held recently in Pretoria, South Africa. Countries to be surveyed include Spain, Portugal, Turkey, Austria, and the United Kingdom. During the conference, L. F. Hartley of South Africa was appointed chairman of the International Wool Secretariat, parent organization of the Wool Bureau, Inc., the associa-

MILTON STEEL BARREL
WARP BEAMS

pictured is Milton Broadloom Beam for C & K Looms

for BROAD, NARROW FABRIC, RIBBON, VELVET & CARPET LOOMS

MILTON steel barrel Warp Beams are sturdily constructed with cast iron adjustable or fixed flanges. Ends equipped for all types of let-off.

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No. 54-S (Steel Beams) No. 49-A (Light Metal Beams)

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MILTON • PENNA.

Control MAXIMUM PRODUCTION
with G. S. HAND TACHOMETERS and SPEED INDICATORS

1% Accuracy for any range from 30 to 100 000 RPM or surface speed.
Antimagnetic durable mechanism
Efficient repair service at moderate charges.

IDEAL FOR MOTORS - SHAFTS - SPINDLES - LOOMS - TURBINES - FOR TEXTILE AND POWER PLANTS

WRITE FOR ILLUSTRATED FOLDER
GEORGE SCHERR CO., INC.
200-L LAFAYETTE ST. • N.Y. 12, N.Y.

News in Brief

tion which conducts wool promotion in the United States.

New Library at N. C. State. A new $25,000 library has been formally presented to the School of Textiles at N. C. State College by Burlington Mills Foundation. The library is dedicated to the memory of four employees of Burlington Mills, alumni of the School, who lost their lives in World War II.

Olney Medal to Appel. The Olney Medal of the American Association of Textile Chemists and Colorists will be awarded to William D. Appel, chief of the Textile Section, National Bureau of Standards, at the annual convention of the AATCC in Atlanta next September.

New GHQ for Cotton Council. Construction has begun on a new headquarters building for the National Cotton Council, on North Parkway, Memphis, Tenn., with occupancy scheduled prior to July 1, 1955. The Oscar Johnston Cotton Foundation will construct the building at a cost of about $400,000, and will lease it to the Council.

Perlon Conveyor Cables. The West German Perlon industry has begun extensive experimental work on conveyor cables for coal mining. Perlon cables have only about one-seventh of the weight of conventional steel cables, a factor of considerable importance in opening up coal fields at great depths.

New Chairman of TRI Research Committee. Richard D. Wells, director of research for Bates Mfg. Co., Lewiston, Maine, has been elected chairman of the General Research Advisory Committee of Textile Research Institute, Princeton, N. J. Vice-chairman is W. Hale Charch, E. I. du Pont de Nemours & Co. Under a new operational plan recently put into effect, the chairman will serve for two years, and will then automatically be succeeded by the vice-chairman.

Palmer Method by the Numbers. Clerical and supervisory personnel at Minneapolis-Honeywell's Philadelphia plant are returning to school to brush up on their handwriting skills. The penmanship tutoring, conducted in twelve weekly half-hour sessions, is aimed chiefly at improving the students' number formation. Most records are kept in pen or pencil, the company's training director asserts, and even with punch card systems the basic data must be hand-gathered and hand-copied before feeding to the machine.

Superstrength Conveyor Belt. A new "superstrength" conveyor belt, designed to haul coal on one continuous belt for three miles underground at a rate of "thousands of tons" per hour, is announced by U. S. Rubber Co. Called Super Ustex-Nylon, the new belt has a warp of chemically treated cellulosic yarn for exceptional strength, and a nylon filling. The belt is claimed to be three times stronger than the strongest rayon belt fabric, and three and one-half times stronger than the strongest cotton duck used in belts.

Cotton Registers Gains. Despite a slump in total consumption of all fibers in women's wear, cotton's share of the market increased from 40 to 43 per cent in five major classifications, the National Cotton Council reports, quoting the Bureau of the Census.

Lifts Hosiery Import Ban. Import ban on a number of textile items, including hosiery, has been lifted by Colombia. However, milady will continue to pay high prices for her nylons in Barranquilla or Medellín — the newly importable items will carry regular tariff duties, plus a 43 per cent import tax based on their value in Colombia.

Two-Fold Textile Tariff Policy. The New England Textile Committee, composed of labor, management, and public members from

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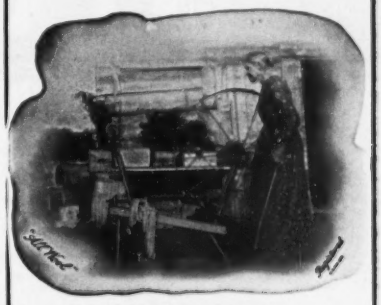

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News in Brief

the six New England states, has gone on record as recommending a two-fold textile tariff policy of no further reductions in tariff rates on any of the different classes of textile products, and raising of tariff rates where foreign imports are causing or threaten to cause unemployment in the industry.

Guide to Maintenance of Box Stitchers. A new chart explaining and illustrating maintenance procedures for box stitching machines of any make is offered by Acme Steel Co., 2840 Archer Ave., Chicago 8, Ill. Chart is printed on heavy stock and is plastic-coated, illustrates adjustments necessary to secure perfect stitch, gives trouble shooter's guide to correction of improperly formed stitches. Ask for Chart AD-154.

Employee Suggestion Awards at GE. A record $685,842 was awarded to employees of General Electric Co. during the past year under the company's suggestion system. 94,338 suggestions were submitted, 31.7 per cent were adopted, average award was $22.91. Top award was $4,800 for an idea for the better utilization of copper in the motor and generator department.

Perlon Coffee Filters. Perlon coffee filters with welded seams have recently been announced by the West German Perlon Industry.

An Executive Views the News in Textiles

(Continued from page 77)

Boards away from the areas where pressures exist, but we are somewhat doubtful about the Washington angle. Most of us in the textile industry look askance at anything coming out of Washington, unless it is a government check, and, for that reason, we doubt the advisability of this move.

Maybe our fears are unfounded but we have a vision of a couple of classers pulling cotton in the bright glare of overhead lights, while television and newsreel cameras grind away, and while a monotone voice in the background intones, "Mr. Chairman, Mr. Chairman. . . . "

We understand that an example is being cited in the trade of a Memphis firm which took delivery on more than 100,000 bales of certificated cotton under a futures contract. When this cotton was classed by the purchaser it showed a loss of 162 points from the certificated class, or $8.10 per bale. The story goes on to say that the purchaser of the cotton selected two lots at random and through public agencies presented it to the Cotton States Arbitration Board for classification. The Arbitration Board's class on these bales showed a loss from the certificated class of 311 points, or $15.55 per bale. The second lot showed a loss of $17.05 per bale.

You do not have to be especially good at arithmetic to understand that on a purchase of more than 100,000 bales of cotton the purchaser lost between $810,000.00 and $1,705,000.00.

If adopted, the suggestions we have pointed out here might remedy this situation for the future, but what can be done about the cotton now in certificated stocks? We have heard it said that at least 50,000 bales of this stock are over-classed. The Government cannot go back to the farmer and say, "we over-classed your cotton and we want some of our money back." The Government made a contract and it will have to stick to it. Perhaps, however, it would be possible to re-class all the cotton now in the certificated class, take our losses like good taxpayers, and start over from scratch.

Whatever the outcome, this fiasco proves one thing to us and that is something we have been thinking all along: the Government has no business guaranteeing a "floor" to anybody for anything.

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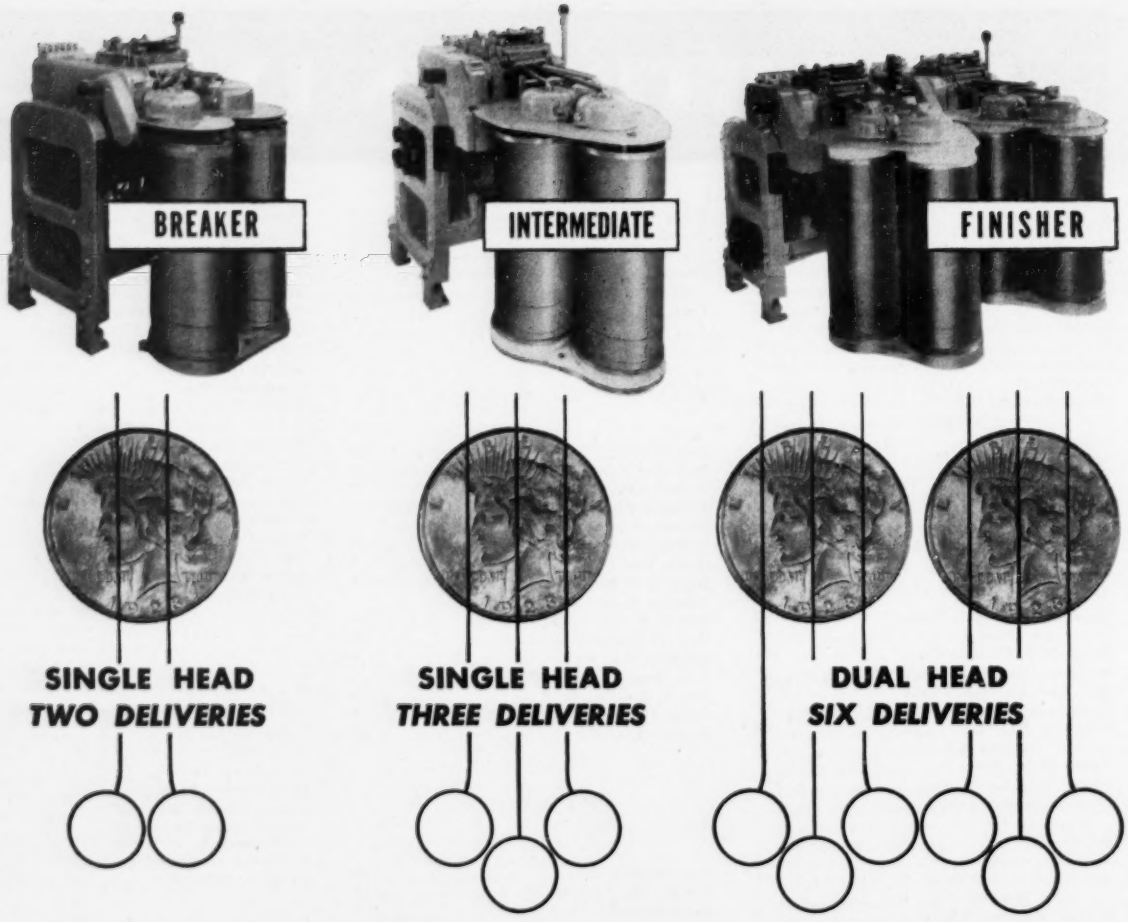

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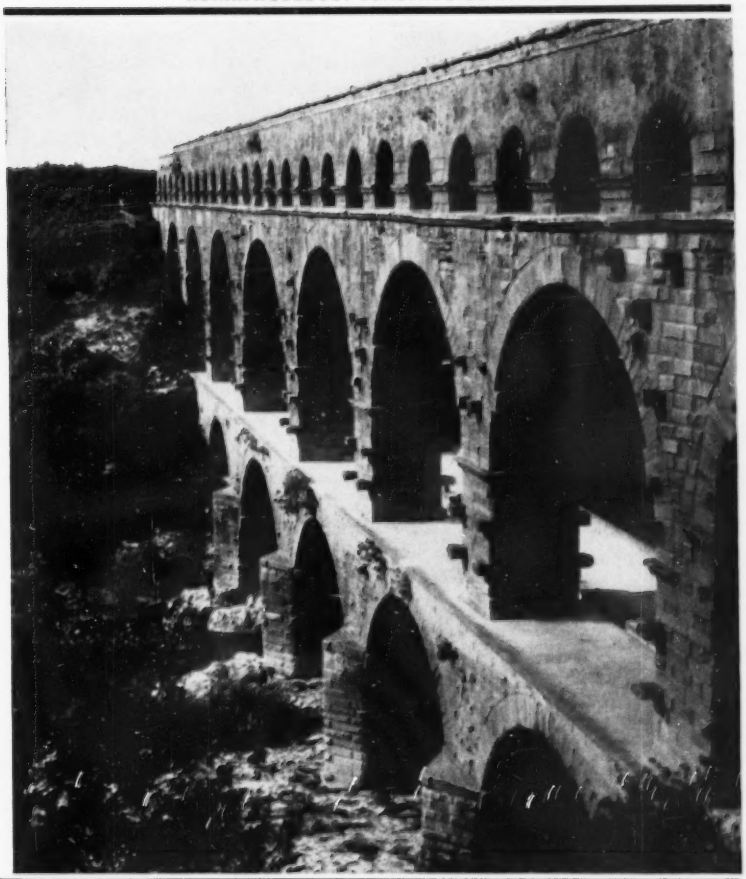

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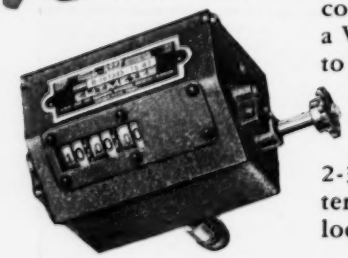

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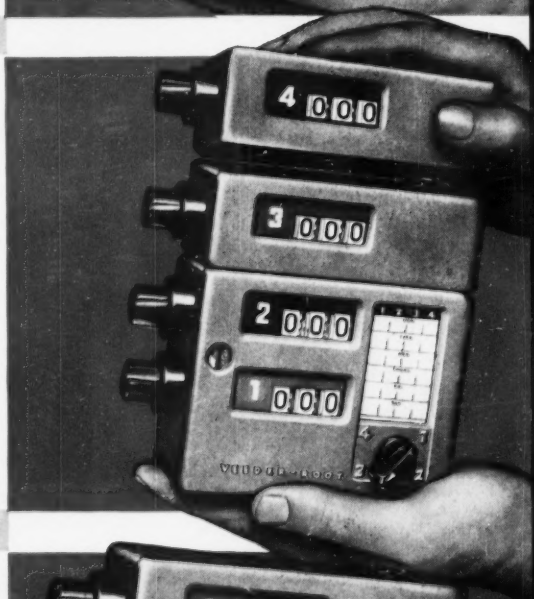

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